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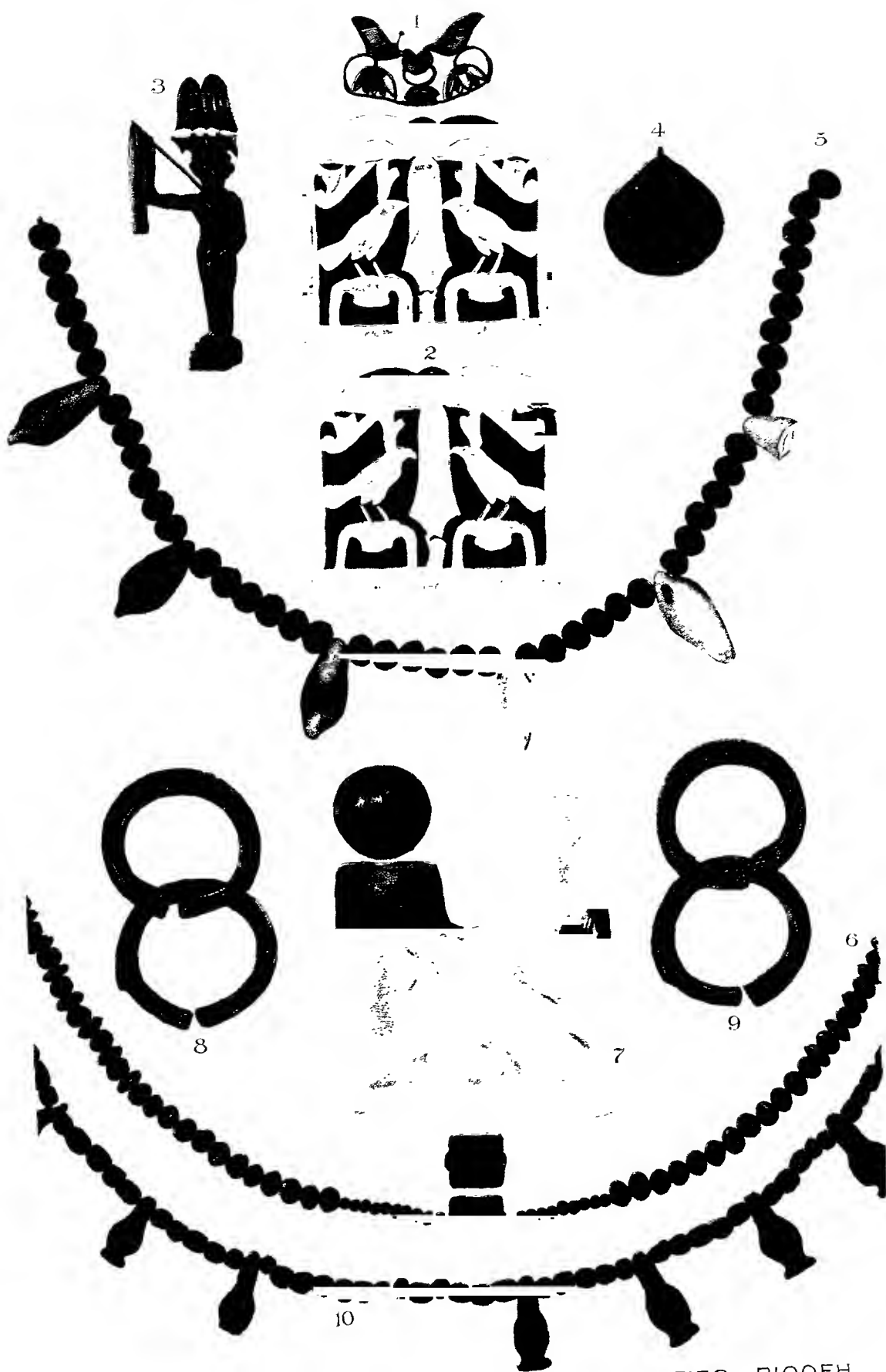
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JEWELLERY OF THE XIITH AND XVIIITH DYNASTIES. RIQQEH.

ANCIENT EGYPT.

TO OUR READERS.

A JOURNAL on Ancient Egypt has long been needed for the five thousand readers of Egyptian history, and several times in the last twenty years it has been proposed to supply this want. There has been hitherto no journal in England or abroad to keep readers acquainted with the advances and discoveries about the principal civilisation of the Ancient World. Egypt appears only occasionally in some periodicals on antiquities in general. The foreign publications on the subject are largely devoted to the single branch of philology, and are not adapted to reach a tenth of those who are interested in the ancient life of Egypt. It seems only fitting, therefore, that the largest society for the study of that country should perform the duty of presenting to the public a view of the advance of knowledge.

During recent years there has grown up an increased interest in the past of man and the course of his changes in life and conditions. Most educated people now feel that the causes and stages of the civilisation that the world now has, and the nature of man which has led him on, is at the very foundation of our view of life,—of our present actions,—of our future expectations. Man cannot be understood except through his own history. This interest in the nature of man is satisfied most widely in Egypt. The history of that land has more continuity than can be found elsewhere, and the age of its known past can scarcely be rivalled in any other country. Prehistoric civilisation is most completely preserved there; and our view of it has been more systematically reduced to order than in any other instance.

When we try to grasp the Prehistoric ages of Europe, it is solely to Egypt that we can turn for any definite scale of history, with which the various periods can be connected. The thousands of years before classical writings can only be gauged by the Egyptian dynasties.

We have, then, to deal with the vital human problem of the nature of man and his development; how he has come to be where he is now. Every intelligent person who looks beyond the day's affairs must feel that the sight of Egypt, with its eight successive civilisations, is more full of meaning and of interest than any other panorama of humanity.

The scope of this *Journal of ANCIENT EGYPT* is intended to include original articles, by English and foreign writers, on discoveries in the history, the antiquities, and the language ; also systematic presentations of the state of knowledge on various subjects of general interest. A special feature will be the summaries of all papers in the foreign periodicals, sufficient to show in detail the movement of research. Accounts of excavations will be given, and notices of antiquities that are brought to light. New books on Egypt will be reviewed and analysed, so as to show how far they would be useful to our readers. Objects of importance in various museums will be brought forward ; and a series of whole-page portraits will be given, two in each number. Lastly, notes and news will be provided, archaeological and personal, relating to Egyptian research.

A feature of this *Journal* will be to make the fullest use of modern facilities of illustration. Wesley said he did not see why the devil should have the best tunes, and we do not see why the world and the flesh should have the best pictures. As many good illustrations as possible will be provided in the text, and also three whole-page plates in each part. The coloured plate of jewellery may we hope be a precedent for each succeeding volume. A head from one of the plates will also be placed on the cover, as a distinctive mark of each part.

The large growth of public interest in Egypt is seen by the flourishing Student Associations, which have been started in recent years in many cities, mostly connected with the British School of Archaeology in Egypt. This journal will be the regular organ of the various branches of the Egyptian Research Students' Association ; and it is hoped that it will also be a common centre for similar bodies in other places.

In no sense is *ANCIENT EGYPT* a substitute for the regular series of annual volumes on the Excavations of the British School in Egypt. Those volumes are essential for presenting the flow of work and discovery by the School. Here the results from various other lines of excavation and study will be given as a whole.

The appearance of this journal has been delayed somewhat, owing to waiting for attempted co-operation with other English enterprise in Egypt. The needs of separate bodies, however, proved to be so different that the issue of separate publications could not be avoided. At the same time we hope to keep our readers informed of all that is done on the subject, from various sources, English and foreign.

THE JEWELLERY OF RIQQEH.

(Frontispiece.)

WHILE working in the XIIth dynasty cemetery of Riqqeh, about four miles north of Meydum, I found the tomb in which was the jewellery shown in the frontispiece. Having excavated the shaft, which was a large one, twenty-two feet deep, we came to the usual bricked-up entrance to the chamber. A small hole had been made in the upper courses of the bricking by an ancient plunderer. The roof had collapsed inside the chamber, and on removing the bricks I saw that about twelve tons of the marl had fallen in. The workmen cleared this away, and when they had arrived within a couple of feet of the floor of the chamber, I stayed in the tomb till it was completely cleared.

The original size of the chamber was 100 inches long and 52 inches wide. The coffin, which had been crushed flat, had been laid in the centre of the chamber. Over what had been the foot of the coffin, and across it, could be traced the remains of a skeleton. Over this again were the arm-bones of another body, the remainder of which lay in a heap about two feet from the chest of the first body. It seemed as if it had been suddenly crushed while in a standing or crouching position.

It appears as if the plunderers had removed only a few bricks, so that a man could crawl inside. One of them entered, opened the coffin, and lifted the body out, laying it across the coffin, so that he could easily unwind the bandages. A collar of beads was first found, and passed out to the shaft, where it was left. Then he reached the jewel, fig. 1 at the top of the plate, and lifted it. Before he could take away any more, the roof fell in and crushed both him and the mummy. The robbers, seeing the fate of their accomplice, abandoned the tomb, and filled in the shaft to hide their doings. By a singularly lucky chance this tomb had escaped the attention of later plunderers; perhaps because they saw that it had already been attacked.

The objects upon the body were as follows:—

Fig. 1. Part of a jewel forming the name of *Kha-kheper-ra*, SENUSERT II, the beetle being winged and supported by lotus-flowers. The forepart and one foreleg of the scarab has been broken away, but doubtless it held the disc of the sun, completing the king's name.

On carefully removing a little more of the dust from the chest, I found the gold shell, fig. 4. The cartouche of gold wire, which is soldered on to the shell, is of *Kha-kau-ra*, SENUSERT III, and has a uraeus on each side of the cartouche.

Below this, again, was the pectoral, fig. 2. This was made by perforating a gold plate, and soldering on strips of gold in the form of the design. Each of the cloisons thus formed was filled in with carnelian, lazuli, or turquoise, cut precisely to the form, and fixed with cement. The back of the plate, shown below, was chased with details of the figures. It is of similar work to the well-known jewellery from Dahshur, now in the Cairo Museum, though not quite so elaborate, and it is probably the work of the same hands. It has been suggested that the middle sign is the *sekhem*; and the jewel was perhaps presented by the king as a

badge of the rank of a noble who carried the *sekhem*-sceptre. On either side are two birds standing on *nub*-signs. These birds may possibly be hawks, as *Hor nub*, or Horus on Nubti Set, is a well-known combination; but the birds in this design are not by any means of the familiar conventional type of falcon. At the top of the pectoral is a pair of *uzat*-eyes, with the sun between them; and the design is bounded on either side by papyri. The piece was sharply bent across by the fall of the roof, but it has now been flattened by the skill of Mr. Young at Oxford.

The small gold figure of the god Min, fig. 3, was found behind the neck, having perhaps fallen down when the bandages decayed. With it were a considerable number of cylindrical and long double-bored beads, which were grouped in the bead-collars so usual in the XIIth dynasty. Lower down on the chest were some spherical gilt beads (fig. 5), and some very minute gold beads. A few of the collar beads, and one of the semi-circular pottery ends of the collar, were thrown away in the shaft. I had the whole contents of the chamber and shaft sifted with a fine sieve, and I did all the sifting of the organic matter in the chamber personally. Nothing further was found except one piece of carnelian inlay of the eyebrow and a piece of the eye, which had been knocked out of the pectoral when it was bent by the falling roof.

The whole of this group is in the University Museum, Manchester.

The lower part of the frontispiece shows a group of jewellery from a tomb of the XVIIIth dynasty. The gold necklace, fig. 6, weighs 477 grains. The centre-piece is a plaque of which both sides are here shown. It is inscribed *Sesh Bera*, "the Scribe Bera," and on the other side *Ra-men-kheper Amen-tut*, the prenomen of Tahutmes III, 1503-1449 B.C. Fig. 7 is a kohl-pot of steatite covered with dark green glaze; the form is that of a seated ape holding the pot, the lid of which is here placed above it. Figs. 8, 9, are four gold rings used for fastening the hair, weighing from 105 to 119 grains each. In this tomb were also a large bronze mirror and a rough alabaster bowl. The whole of this group is now in the Royal Scottish Museum, Edinburgh.

At the base is part of a string of carnelian beads, characteristic of the XVIIIth-XIXth dynasty, found broken up in another tomb.

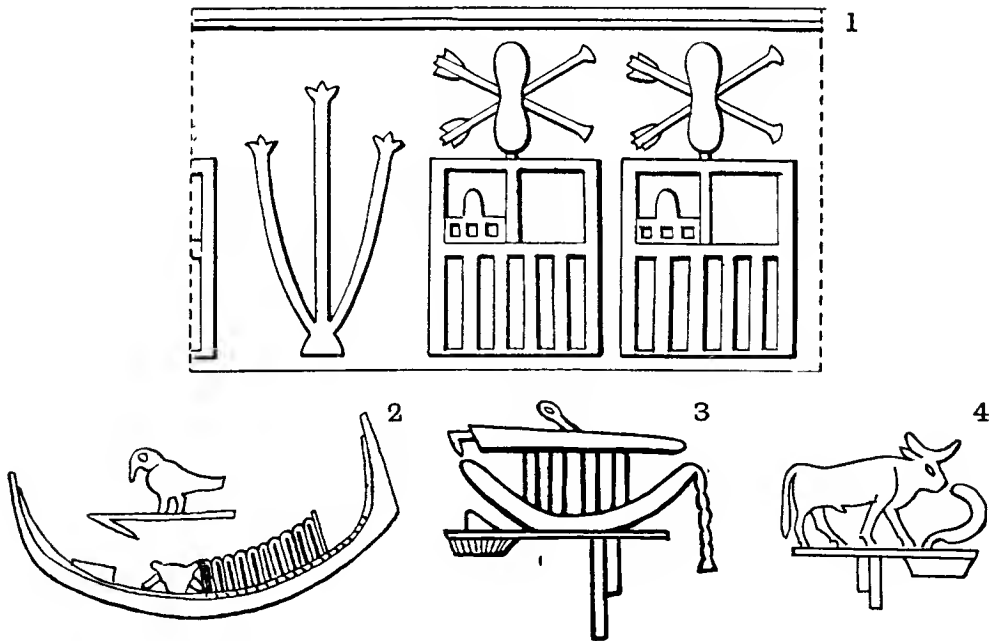
A fuller account, with a larger plate in colours, will appear in the first of the annual volumes *Riqqeh and Memphis VI*.




REGINALD ENGELBACH.

NOTES ON SOME EGYPTIAN NOME ENSIGNS AND THEIR HISTORICAL SIGNIFICANCE.

It is generally recognized that the nomes of Egypt are the survivals of pre-Menite States, and there is abundant evidence to prove that many of these States retained in dynastic times, as nomes, much of their ancient character and liberties. A study of the nome ensigns ought, therefore, to yield us some information concerning the various States of Egypt before the founding of the Monarchy by Menes. The object of this paper is to draw attention to certain compound nome ensigns, and to suggest their historical signification. The religious significance of the nome signs has been already dealt with in my paper on *Some Prehistoric Egyptian Cults*, in the *Liverpool Annals of Archaeology*, Vol. VI, p. 111.



The titulary of the early kings is important in this connection. All the kings of the Ist dynasty bear Horus names, *i.e.*, the Falcon (Horus) of Hierakonpolis in Upper Egypt surmounts the palace façade in which their names are written. They were primarily chieftains of the Falcon Nome, or State, of Upper Egypt. (See my paper on *The Horus-Title of the Kings of Egypt*, in the *Proceedings of the Society of Biblical Archaeology*, Vol. XXVI (1904), pp. 295-299.)






In the IInd dynasty we find with Per-ab-sen that in place of the Falcon upon the palace façade there is a *Set*-animal, which certainly indicates that the chieftains of the  nome had gained the supremacy in Egypt, that they had overthrown the Falcon chieftains and seized the throne. With Khasekhemui the palace name of the king is surmounted by the *Set*-animal on one side, and the Falcon on the other, which suggests an alliance between the royal families of the  and the  nomes. After Khasekhemui, the *Set*-animal is never again found above the







palace name of a king, but the Falcon invariably appears upon it. Another nome ensign appears over the palace name of Menes' queen, Hotep (see Fig. 1): this is the ensign of the Saite Nome of Lower Egypt, and suggests that Hotep was the hereditary chieftainess of Sais, the pre-Menite capital of the kings of Lower Egypt.¹ By his marriage with this royal lady, Menes united the thrones of Upper and Lower Egypt.


On the Slate Palette of Narmer (Menes) there is a scene representing the king smiting the chieftain of the Harpoon kingdom (in the north-western corner of the Delta), and on the verso of the same palette there is a scene showing Narmer inspecting the beheaded bodies of his foes. Above this scene is a large boat over which is a Harpoon with a Falcon standing upon it (Fig. 2). This Harpoon upon a boat is the ensign of the Harpoon Nome (Fig. 3) and the Falcon standing upon it indicates, according to the usual Egyptian convention, the conquest of the Harpoon kingdom by the chieftain of the Falcon clan.

Now among the nome ensigns of Egypt there are several which represent the Falcon standing on, or by, the distinguishing sign of a nome. For example, the ensign of the Western or Libyan Nome is . This is a compound ensign and records the conquest of the  clan by the Falcon chieftains. When this conquest took place we do not know, but it was probably some time just before the establishment of the Monarchy, when the Falcon army were pushing their way up to the Mediterranean. Another nome ensign surmounted by a Falcon is that of

the Oryx nome . This ensign with the Falcon upon the back of the Oryx







only occurs in late inscriptions. The Oryx was one of the Setian animals and it was perhaps during the wars of the "Followers of Horus" (*i.e.*, the Falcon people) with the Set clan, towards the end of the IInd dynasty, that this conquest took place. To the east of the Oryx Nome there was a small district with  for its ensign (*Beni Hasan*, I, Pl. XXV, l. 35). Here, perhaps, was a small colony of the  clan (see next page) from the Delta, which had been vanquished by the Falcon people.


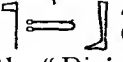

To the south of Middle Egypt there were two large nomes having for their ensigns  and  respectively. Here in prehistoric times was probably a great  "Cerastes"-worshipping clan, which was vanquished by an expedition from the  Herakleopolitan and  Xoite people, the former taking possession of the land on the western bank, the latter, the land on the eastern bank. In historic times there are several indications of the close relationship between the Herakleopolitans and the people of the  nome.²













¹ The names of certain of these pre-Menite kings are found in the top register of the Palermo Stone. The determinative used in writing their names is the king wearing the Neith crown .















² That the chieftains of Siut were the powerful adherents of the Herakleopolitan kings is well known, but there is a significant passage in the inscription of Kheti II (GRIFFITH, *Siut and Der Rifeh*, Pl. XV, l. 2) dealing with the canal of his district, in which he says that he "brought a



Turning now to the Delta nomes we find a remarkable group of compound ensigns, in which, behind the distinguishing sign of the nome, there is a figure of a Bull. In the Old Kingdom there were four of these ensigns, and later a fifth appears. These are :—

(1) . (2) , var. . (3) . (4) . (5) .



(1) A late variant of the first is , and the name of the capital of the nome for which the ensign stood was  *Tb-ntr*, the Greek Sebennytos, the Arabic Samanûd. *Tb-ntr* means the "Divine Calf," and this was the sacred animal of the  nome.



(2) The second ensign has been understood to mean the nome of the "Wild Bull," the Bull of the  or desert (GRIFFITH in *Ptah-hetep* II, p. 27). On the analogy of  we ought, I believe, to take the  or  as being the cult object of the people of the nome. The sacred name of its capital was  (var. ) and as we know that there was an important  (var. ) cult,¹ the  (or ) in this ensign clearly stands for the  (or ) cult.


(3) The third ensign is usually spoken of as that of the "Black Bull" (GRIFFITH in *Ptah-hetep* II, p. 27). The name of its capital, however, is sometimes written  which on the analogy of (1) and (2) suggests that there was a cult of the . What was this  cult? The reading of the sign gives us  or , which is a well-known name for the shield. In the Pyramid Texts² we actually find  = , i.e., it is a word-sign for the slender parrying shield which is figured in early inscriptions in the compound nome-ensign . This compound nome ensign consists of two originally separate cults (1) the -shield (*ikm*) and (2) the crossed arrows  (*nt*). For an Egyptian shield cult we have the authority of Aristides, who mentions that there was a district in Egypt sacred to Athena (Neith) where shields were dedicated, but he unfortunately does not give us the name of the place. Now Neith had a temple in , and as we have seen  = , it seems probable that  is the district to which Aristides alludes ;







gift for this city (i.e., Siut), in which there were no families of the Northland, nor people of Middle Egypt." Breasted, commenting on this passage (*Ancient Records*, I, 407, note *b*) says :—"The remarkable statement perhaps means that no forced labor was employed on the canal, from any part of Egypt composing the Herakleopolitan kingdom, viz., the *Northland* (Delta) and *Middle Egypt*." It means, I think, that the colonists from the  nome (in the Delta), or from the  nome (in Middle Egypt), who resided in the nome were exempted from all forced labour on the canals.


¹ On this cult see my paper in the *Liverpool Annals of Archaeology and Anthropology*, Vol. I, pp. 24 *et seqq.*

² Ed. Sethe, 252, 431. Compare also  (227) for .

that it was, in fact, the seat of an early shield cult. Thus, I take it, in the nome ensign  the  is a word-sign for the cult-object of the nome.

(4) Regarding the geographical position of the  (Fig. 4) nome we have no evidence; but that it was in the Delta, and somewhere in the neighbourhood of the other "Bull" nomes, is probable. The cult-object here is clearly a sickle.

(5) The fifth ensign, which first appears in the New Kingdom, has a -sign in front of the Bull, and the name of this nome's capital was  *Hsb-t*, which is one of the readings of the -sign. This would lead one to suppose that there had been, at some time, a cult of the . Whatever this  represents does not concern us here, but the interesting fact is that the sign serves to differentiate the nome ensign  from the other ensigns of this "Bull" group.

Now in the "Bull" ensigns that we have been studying it is to be observed that the Bull stands behind, and is moreover figured on a much larger scale than the distinguishing cult-sign. The Bull was, we know, a very important cult-animal of the Central Delta, and indeed the Central Delta district is sometimes represented by the Bull upon a perch without any distinguishing sign before it. This last fact, and the occurrence of the Bull upon the five ensigns mentioned above, suggests that a Bull-worshipping clan had become supreme in the Central Delta in pre-Menite times. On several of the archaic Slate Palettes the king is actually figured in the likeness of a Bull, and from the IVth dynasty onwards he is often called the  "the Strong Bull." In these Delta "Bull" names we have, I believe, evidence of a pre-Menite "Bull" kingdom.

Before concluding these brief notes on the nome ensigns I may bring forward one more fact that is of interest concerning them. A certain number of the ensigns are surmounted by the ostrich feather; this feather appears not to be a sign of conquest but an indication of race. It was the characteristic symbol of Libyan tribes, and whenever it appears above an ensign it indicates a colony of Libyan people; in other words, the ensign that it surmounts was originally a Libyan cult.

PERCY E. NEWBERRY.

NOTE.—In connection with the preceding paper it may be observed that of the Bull nomes discussed here VI, X, XI, XII, the evidence of the historical development is that X, Athribis, *Ka kem*, is the original centre. It was the only one of these which had the festival of the Corn-Osiris (*Historical Studies*, VIII). Nomes VI, Xoïs, *Ka-khas*, and XII, Sebennytus, *Ka-theb*, appear next, just before the order of the nomes was finally arranged in river lines. Lastly came XI, Pharbaïthos, *Ka-heseb*, a region where Set was still the deity in historic times.

These four nomes occupy the middle Delta, and with them must be grouped by its position IX, Busiris, which had one of the greater relics of Osiris, and so preceded VI, XI, and XII, in its growth. That Osiris could be looked on as a bull is shown by Osiris of Sheten Pharbaïthos being called "the bull" (DE ROUGÉ, *Geog. Basse Eg.*, 70).

As to the ostrich feather, though a Libyan sign, it also seems to be a divine sign in early times, appearing in the Ist dynasty on the backs of animals that were worshipped. Perhaps it owes this meaning to its being the *shed-shed*, the vehicle of the soul mounting to heaven.

F. P.

MOON-CULT IN SINAI ON THE EGYPTIAN MONUMENTS.

THE monuments found in Sinai contain information which points to the existence of moon-worship in the Peninsula at a remote period in history. These records consist of rock tablets which were engraved by the Pharaohs from the Ist to the XIXth dynasty, over the mines which they worked at Wady Maghara, and of remains of various kinds discovered in the temple ruins of the neighbouring Sārbut el-Khādem or Serabit. The Egyptians went to Sinai primarily for the purpose of securing copper and turquoise, which are found in a ferruginous layer that appears in the mountainous district of the western part of the Peninsula.

The mines at Serabit lie in the vicinity of two adjacent caves facing an extensive site of burning, which has the peculiarities of the high-places of which we hear so much in the Bible. These caves formed a sanctuary which, judging from what is known of ancient sanctuaries in Arabia generally, was at once a shrine and a store-house, presumably in the possession of a priesthood or clan, who, in return for offerings brought to the shrine, gave either turquoise itself, or the permission to mine it in the surrounding district. The sanctuary, like other sanctuaries in Arabia, was under the patronage of a female divinity, the representative of nature-worship, and one of the numerous forms of Ishthar. In the XIIth dynasty, when the Egyptians gained a permanent foothold at Serabit, they identified this divinity as their own goddess Hat-hor. The figure of Hat-hor appears again and again on the wall-decorations of the temple buildings; her head surmounts the columns of a chamber in front of the cave, and in the inscriptions she is called, at first, "mistress of the turquoise country"; and later, simply "mistress of turquoise."

There are many Hathors in Egypt, but the form that is shown in Sinai is Hathor with a headdress of cow's horns which enclose the orb of the full moon. The form is familiar in Egypt also, and the association of Hathor with the moon-cult at home was apparently the reason why she was chosen as the Egyptian representative of the female divinity of Serabit in Sinai.

Hathor appears on the monuments of Serabit from the XIIth dynasty onwards. In one instance we find her represented also at Wady Maghara. The Egyptian monuments at Wady Maghara consist of tablets that were carved on the living rock above the mines, in order to commemorate the hold which the Pharaohs here gained over the country. The tablet on which Hathor is seen is of Amen-em-hat III (XII, 6) and is throughout of a peaceful character. The king is represented facing the ibis-headed figure of Thoth, who holds out to him a staff on which are the *ankh* and the *dad*, signs of life and stability, and Hathor stands behind Thoth.

This introduction of Thoth likewise bears on the moon-cult of the Peninsula, for the Egyptian god Thoth was originally a lunar divinity. His chief shrine

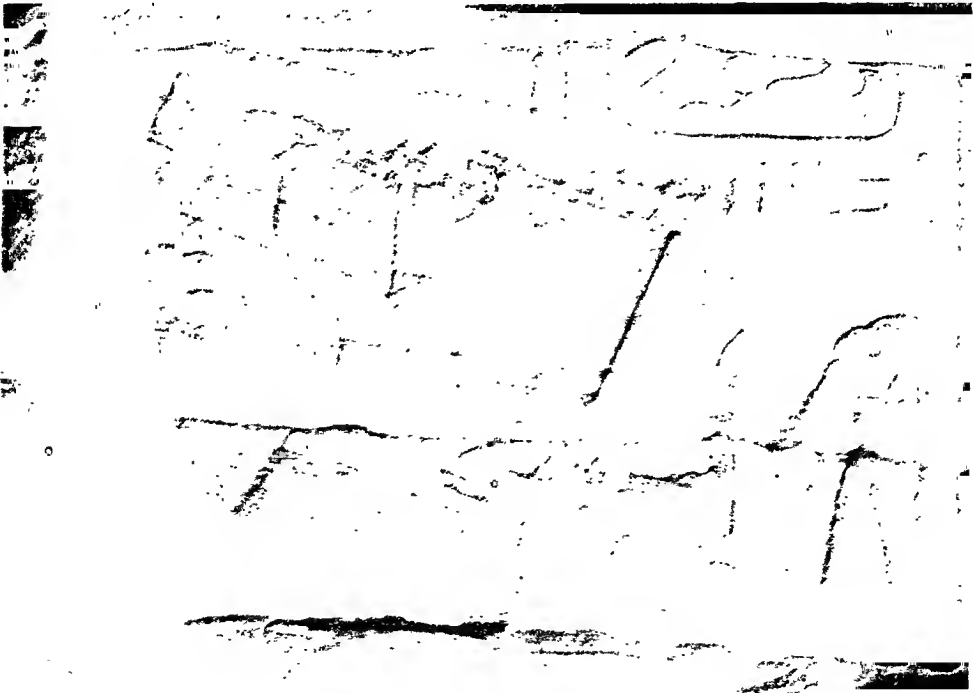


5. AMENEMHAT III, Thoth and Hat-hor. Maghareh.
(*Researches in Sinai*, Fig. 55.)

during historical times was at Hermopolis in Lower Egypt, where he was represented as ibis-headed. But he was also represented under the form of a baboon, or a baboon was associated with him.

The tablet of Amen-em-hat III seems to indicate that Thoth, in this capacity of a lunar divinity and as the representative of the moon-worshippers of the Peninsula generally, was well disposed towards the Pharaoh of Egypt; Hathor, mistress of the turquoise, was in attendance on Thoth as the representative of the neighbouring district of Serabit.

This interpretation of the scene is confirmed by earlier monuments. A rock-tablet of Ra-en-user (V, 6) at Wady Maghara, which is much broken, shows the figure of Thoth, who probably faced the king. On the other part of the tablet the king is seen smiting the enemy, who crouches before him, and a large libation vase, supported on three *ankhs*, emblems of life, is accompanied by words to the effect that "the lord of foreign lands gave coolness." Here Thoth, the lunar divinity, also appears in friendly relation with the king; the king smites the enemy, and by doing so gains the approval of the lord of foreign lands.



6. "KHNUMU-KHUFU, the Great God smiting the Anu" before Thoth.
Wady Maghareh. (Palestine Exploration Fund.)

Again the tablet at Wady Maghara, of King Khufu (IV, 2) the great pyramid-builder (now unfortunately destroyed), represented the king smiting the enemy, and doing so actually before the ibis-headed figure of Thoth (Fig. 6). The king here again is acting in agreement with the lunar divinity, whom he is honouring by smiting his foes.

Other finds point in the same direction, confirming the belief that the Egyptians looked upon the inhabitants of Sinai as moon-worshippers.

Thus, the figure of a baboon, the animal or incarnation of Thoth, was discovered at Serabit during the excavations of 1905-1906. The figure is of sandstone, worked in a rude style, and was found in the holy cave itself. This figure is now in Oxford. Another figure of a baboon, life-size, and worked in limestone with an inscription around its base, came out of one of the store-chambers that adjoined the cave. If I mistake not, it was of the Middle Kingdom. These baboons, emblems of the lunar divinity in Egypt, were presumably considered for this reason suitable offerings to the sacred shrine of a people who were themselves moon-worshippers.

The rude figure of the baboon that was found at Serabit is similar in character and workmanship to figures of baboons that were found at the primitive shrines of Abydos and Hierakonpolis in Upper Egypt. The baboon was here, perhaps, originally the holy animal, the cult of which was overlaid in predynastic times by the cult of the god Osiris. Many figures of baboons, over sixty in one instance, were found in the earliest levels of the temple at Abydos, that were excavated in the winter of 1903-1904. Their position showed that they had been discarded at an early period of history. The likeness in character of the baboon found in Sinai to the baboons found in the early levels at Abydos and Hierakonpolis suggested that the emblem of the baboon was carried to Sinai at an early period in history.



7. Sandstone Baboon.
Serabit. (*R. Sin.*, 127.)



8. Glazed Baboon.
Hierakonpolis. (Univ. Coll. L.)



9. Glazed Baboon.
Abydos. (Univ. Coll. L.)

The Egyptians from the earliest times approached the shrine at Serabit in the character of quasi-worshippers, and judging from the remains and offerings that were found in the caves themselves, and in the adjoining row of store-chambers, their relations with the centre were throughout of a friendly character. For here already King Sneferu (III, 9) deposited as a gift the figure of a hawk, his favourite emblem, found likewise in his funeral temple in Egypt, the inscription and workmanship of which show it to be a contemporary monument.

Sneferu (III, 9) who thus figured as a quasi-worshipper at Serabit, appears as a smiter of the enemy at Wady Maghara. On his rock-tablet he is seen as a smiter, wearing a headdress that consists of a double plume that rises from a pair of horns. The double plume is well known, but such horns are foreign to Egypt. Again these horns point in the direction of moon-worship, for they recall

the lunar horns that are worn by the moon-god and his devotees on ancient Babylonian seal-cylinders.

On the scene of smiting, as we see it represented at Wady Maghara, the Pharaoh wields his mace over the enemy whom he holds by his top-knot, together with a spear and a curved object which he seems to have taken from him. The curved object is probably a boomerang, or throw-stick; the man is of Semitic type, not unlike the better Bedawy of to-day. The earliest tablets at Wady Maghara contain little wording beyond the titles of the king. But Sneferu



10. "SNEFERU, the Great God, ravaging the Lands," before his *ka* NEB-MAOT.
(*Researches in Sinai*, Fig. 50.)

(III, 6) who wears the lunar horns is called "great god smiting countries," or barbarians; King Khufu (IV, 9) who slays the enemy before Thoth is called a "smiter of the Anu," Sahura (V, 2), and later kings of the Vth and VIth dynasties are described as smiting the Mentu. The Anu are mentioned on the Palermo Stone in connection with a king whose name is broken away, but who is probably Den-Setui, fifth king of the Ist dynasty, as he is known to have made expeditions into Sinai. The Mentu was the ordinary word that was applied by the Egyptians to the Asiatics. As the Pharaohs were acting in concert with moon-worshippers in Sinai in attacking the Anu and the Mentu, we are left to infer that these were not moon-worshippers themselves.

The Egyptians went to Sinai in order to secure turquoise and copper. Turquoise has been found in Egypt in Neolithic graves; for copper there would

be an increasing demand on all sides from the close of the Neolithic age. The Egyptians were always on friendly terms with Serabit, the centre of the turquoise district. It was at Maghara, between the Ist and the Vth dynasty, that they came into conflict with the invading Semites who disputed with them the possession of the mines.

The association of Sinai with moon-worship is in keeping with what is known from Semitic sources.

The Moon-god in early Babylonia was known under various names and epithets. As Ea, or Ya, he was looked upon as the oldest Semitic god of Babylonia, to which his coming brought the artificial culture of the date-palm, probably by way of the Persian Gulf. Ea, like Thoth, is esteemed the source of wisdom and culture, and Eabani, his devotee, was represented wearing lunar horns similar to those that are worn by Sneferu. A later name of the Moon-god among the Semites was Sin. As Sin, the name forms part of the name of Naram-Sin, king of Agade, whose date is about 3750 B.C., and whose actions, as we learn from his Annals, were considered in the light of lunar influence. The Moon-god, as Sin, had a sanctuary at Ur of the Chaldees, the starting place of Terah and Abraham, and a sanctuary at Haran, in Northern Syria, the place to which they migrated; and the name Sinai itself is connected by scholars with Sin. The name appears in three forms in the Bible in the list of the stations of Exodus, which stand in Chapter 33 of the Book of Numbers, which is apportioned by the higher critics to the Elohist, the earlier source of the Hexateuch. There is named the wilderness of *Sin*, the desert of *Sinai*, and the wilderness of *Zin*—places that lie in different parts of the Peninsula—which point to a general association of the country with moon-worship.

The list of the stations of Exodus has the appearance of a contemporary record. It establishes the association of moon-worship with the Peninsula about 1300 B.C. The Egyptian monuments, as we have seen, carry this association several thousand years further back in history.

LINA ECKENSTEIN.

THREE STELAE AT GRAZ.


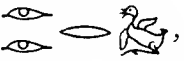
AS far as I was able to ascertain the Egyptian monuments at Graz have never been studied. Years ago Prof. Strzygowski sent me photographs of the three stelae which I am publishing here. The most remarkable one is Fig. 11, showing King Sebekemsaf presenting wine or some other liquid, to the god Ptah-Sokaris, of whom the king is beloved. Unfortunately, we cannot make out which of the Sebekemsaf kings of the XIIIth dynasty is the king here mentioned. The style of the monument (H. 0.42 m., B. 0.22 m.) shows the somewhat rude art of the late Middle Kingdom. Limestone, from Thebes.



11. SEBEKEMSAF offering to Ptah-Seker who gives him life.



12. MERTITHA making a drink-offering to Horaakhuti, Great God, Lord of Heaven.

Fig. 12 is a small limestone stela which is of the rough work usually found in the late New Empire. The dead, the son of NESQA'MIN, MERTI-R-ZA' is praying before Horus. For the names compare LIEBLEIN, *Dictionnaire*, 2414 and 2411, 2346. The style of the relief, bad as it is, hardly allows us to put the monument later than 700 B.C.; in this case the writing  for , is interesting as one of the oldest examples of the use of the Ptolemaic system of writing in private names. No traces of colour. H. 0.205 m., B. 0.125 m.

Perhaps the finest piece of the three, from an artistic point of view, is the portion of a limestone stela, Fig. 13, H. 0.33 m., B. 0.28 m. In the upper register one named MINEPTAH-NFU-*'EA'* (Merneptah-nefu-oă) prays to Osiris Chenthamentes Onnofris (Khentamenti Un-nefer). Below, a priest with a leopard's skin round his shoulders burns incense to Osiris. The elegant, though not very delicate work, points to the XIXth or XXth dynasty. The reading of the names is not certain, and I have no hand copy of this monument.

FR. W. VON BISSING.



13. MERNEPTAH-NEFU-OA adoring Osiris Khentamenti Un-nefer.

EGYPTIAN BELIEFS IN A FUTURE LIFE.

(The Drew Lecture, November, 1913.)

THE remote view which we gain in the literature and customs of Egypt is the longest vista into the growth of mind and ideas that is open to us. In no other land are there such full written materials, such abundant details of funeral ritual, and so complete an historical record to fix the relation of all the developments that are found. Egypt is, therefore, the most favourable ground for studying the growth of beliefs regarding the nature and the future of the soul.

The beliefs about the soul are closely bound up with the theology. The functions of the gods of different races which entered the land, naturally determined the relations of the soul to the gods in the future. Hence it is necessary to notice the main changes in religious beliefs, and to refer to the principal gods of each cycle ; but our subject will be simplified by avoiding the theology where it is not essential to the views regarding the soul.

In order to realise the historical setting of the growth of belief, we must first briefly state the periods of thought which we have to regard in this question, beginning with what is best known. In the (1) Christian Age there survived many reflections of the older faiths, especially on points not decided by Apostolic teaching. The (2) Alexandrian age was greatly pervaded by Syrian, Persian, and Indian thought, as seen in Philo, the Book of Wisdom, and the Hermetic books. The rise of this was doubtless influenced by the sense of personality and ethical right, in the sixth to the eighth centuries B.C., seen in Ezekiel, Hesiod, and Piankhy the Ethiopian. In (3) the Age of the conquest of Syria by the Thothmides and Ramessides, 1200-1600 B.C. (which we might call the Exodus Age), no doubt Oriental influences were at work, mainly seen in the bursts of solar monotheism which soon disappeared. The so-called Book of the Dead was the popular guide to the future world in this age. (4) The previous great civilisation of the Xth to XVIth dynasties shows a growth of personal enquiry, some agnosticism, and the development of the belief in the Osirian Judgment of the Dead. This period is put at about 2000 to 4000 B.C., by the uniform and consistent statements of the Egyptians. Before this was (5) the Pyramid Period, 4000 to 5000 B.C., from which we have the long Pyramid Texts, the earliest compilation known, mostly from much more ancient sources. Of the earlier stages we can broadly distinguish three ; these are (6) the Heliopolitan eastern sun-worshippers, 5000-7000 B.C. ; (7) the western Osiris-worshippers, of 7000-8000 B.C. ; and the (8) primitive animal-worshippers, perhaps Palaeolithic, before 8000 B.C.

It may seem surprising to refer to any religion in Palaeolithic times. Yet the precision of the funeral ritual extends back to the earliest Neolithic graves that we know in Egypt, and offerings accompany burials in Europe back to the age of the Cave men. The sun-worship, which is dominant in the Pyramid Texts, cannot be due to the Vth dynasty in which Heliopolis was prominent, but must belong to the much earlier rule there of the Delta kings. This is shown by the general tone of the civilisation which underlies the religious texts. To take one instance: the dead king is often stated to depend on reed floats to cross the waters of death, while boats and ships had been familiarly used throughout the

second Prehistoric Age, 5000 to 7000 B.C. Had the magic texts originated later than that, boats would have been pre-supposed in all cases, and the more primitive floats would not have appeared. Thus the sun-worship ideas (6) must be put as early as we have stated, and before those lie certainly two earlier strata of belief. We have now stated the general position historically.

The actual sources of information are (A) the wide-spread funerary customs, as recorded from many excavations; (B) the Pyramid Texts, edited by Dr. Sethe, translated into French by Sir Gaston Maspero, and discussed in English by Prof. Breasted, in his *Development of Religion and Thought in Ancient Egypt*, (referred to as *Br.*); (C) the Coffin Texts published by Lacau, but not yet translated; (D) the Book of the Dead, best translated by Renouf.

The earliest stratum of ideas that we can distinguish before the rise of the cult of Osiris, or the sun-worship, is doubtless an accumulation of several earlier stages: the history of those is beyond recall. Whether we shall ever be able to distinguish these primitive strata by any contemporary facts is very doubtful: but possibly the finding of some cemetery earlier than any yet known, or of some group of neighbouring tribes, may show the dividing lines of the periods.

The animal-worship, and the most primitive deities reputed to be the parents of the gods, are the earliest ideas which we can distinguish. Animism appears in the spirit of the tree which guards the cemetery, and is the Tree-goddess shown in later pictures as giving food and drink to the dead. Certainly the dead were supposed to have a continued existence, as food offerings are found in the very earliest graves. A remarkable idea, described later, is that dead persons head downward were malignant, and were enemies of the good dead who stood upright. This very crude idea was probably derived from the symbolism expressed in a prehistoric painting, where a defeated enemy is portrayed head downward. It seems that this must have originated in the earliest days of savagery, and be part of the most primitive thought about the future life.

The earliest deities that we can trace are the feminine heaven, Nūt, and the masculine earth, Geb. It may seem strange that the Nile and the Sun, the present essentials of Egyptian life, were not the first objects of worship. But the order of selection agrees with the conditions of the country at that remote age. It is probable that rainfall continued, and hunting, not agriculture, was the task of man, until the beginning of the prehistoric Osirian civilisation. The hymn to Nūt preserved in the Pyramid Texts is regarded as the oldest fragment of the ritual (*Br.* 95, 148). It traces the birth of the sky from Shu and Tefnut, space and fluid (aether and chaos), mere abstractions which were never worshipped. The purpose of the hymn is to beseech Nūt to give benefits to the deceased (*n*), who is thus supposed to have gone to the sky. "Geb (the Earth-god) is come to thee, O Nūt, and thou art become strong. Thou didst rule in the body of thy mother Tefnut (chaos) when thou wast not yet born; give (*n*) life and strength that he may not die.

"Take rule in thy heart and come forth from the body of thy mother (chaos) in thy name of Nūt (sky). Strong one, daughter who is ruler of her mother, and who arises as queen of the Delta; protect this (*n*) who is in thy body that he die not.

"O Great One who is produced in heaven and there rules, thou hast come, thou hast filled all places with thy excellence, the whole land is under thee, and thou hast taken it, thou hast embraced the earth for thee, and all things are in thy arms; grant this (*n*) to be like an indestructible star within thee.

"Thou art not separated from Geb in thy name of Heaven, and thou protectest the whole land in all places.

"O Thou who stretchest thyself above the earth, above thy father Shu (space, or aether, which separated heaven from earth), and who rulest over him, because he loves thee and puts himself and all things under thee; seeing that thou hast taken each god unto thee with his boat in order that they wander not from thee like stars, let not (*n*) wander from thee in thy name of Guardian."

Here the heaven, Nūt, is appealed to (1) by her vitality, to give life to the dead; (2) by her ruling powers, to protect the dead; (3) by her control of all things, to give a place to the dead like an indestructible star, that is, one of the circumpolar stars that never set; (4) by her guidance of the gods who sail in their boats across the sky, to guard the dead likewise from wandering away.

From this we gain the first view of the position of the dead. They were immortal; they went to the sky, not to the Earth-god, Geb; they were not to suffer extinction and re-birth, but to be always above the earth like the northern stars. All this belongs to an earlier stage than the Osiris-worship: to a stage from which Osiris raised man by teaching agriculture and giving laws, according to the Egyptian tradition. It is the stage of a savage life of hunters, before the rise of the prehistoric civilisation,—the stage when a dead enemy, turned head downward, became a malicious spirit. Yet the essential ideas of spirit, of immortality, of a life in the sky, are all dominant.

This future life needed to be sustained, and various provisions for its benefit were placed in the grave. We have not yet found any graves dating back before the Osirian Age, but there can be no doubt that the custom of placing food and weapons in the grave belongs to at least as early a stage as the conception of the dead going to the Sky-goddess.

To this pre-Osirian Age must also be assigned the cannibalistic idea of eating the gods to acquire their qualities. Such an idea cannot have arisen when only a few mighty anthropomorphic deities were recognised; it belongs to the half-animistic age, when a multitude of spirits peopled the future life, and might be caught like cattle. The dead "is one who eats men and lives on gods"; various of his ministers lasso the gods, and stab them, take out their entrails, cut them up, and cook them. The dead "is he who eats their charms, and devours their souls; their great ones are for his morning portion, their middle ones are for his evening portion, their little ones are for his night portion, their old men and their old women are for his oven. It is the Great-Ones-North-of-the-Sky who set for him the fire to the kettles containing them, with the legs of their oldest ones as fuel" (*Br.* 128). It would be impossible to put in the Osirian Period the orgies from which this feast is described; they obviously belong to the ages before Osiris is said to have civilised the Egyptians.

Connected with this is also the ritual of dismemberment of the dead. The allusions to this are frequent, even in the comparatively late compilation of the Book of the Dead. There is no reason to doubt their literal detail when we find many instances of this unflensing of the dead continuing through the Prehistoric Age, and even into the Pyramid Period. The reason asserted for this custom was the purifying of the dead from all his evil. The reconstruction of the body is often mentioned, and the returning of the head to it.

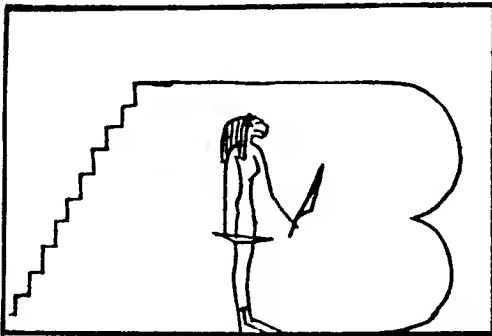
We have now noticed the main ideas which appear to belong to the earliest age that we can trace; they doubtless are really of varying strata and sources, beyond

our present analysis, but at least we may say that they precede the Osiris- and the Solar-worship, and are probably earlier than the prehistoric civilisation.



14. NŪT, the starry goddess of heaven, overarching GEB, the earth, covered with reeds. She is supported by SHU (space); over her back rises and sets the boat of RA. (LANZ., *D.M.*, CLV.)

When we view the Osiris cycle of gods, belonging to the first prehistoric civilisation, the earliest of them appears to be Set, in later times driven out, cursed, and extirpated, yet strangely coming up again in the name of one of the greatest kings, Sety. The oldest myth about him is that he is in charge of the ladder by which the dead ascend to the sky (*Br.* 153). This idea of the ladder must belong to the age before the antagonism of the tribes of Set- and of Osiris-worshippers, which caused Set to be proscribed; and also before the rivalry of the Set and Horus tribes. To the dawn of the Osirian Period must belong, then, the belief in some aid



15. The stairway up to heaven guarded by Sekhmet. Papyrus of Asar-auf-ankh. (LEPS., *Todt.*, LXXII.)

of steps or ladders to get up to Nūt, the heaven, where the dead were to dwell. This idea long survived, as in the XXIInd Chapter of the Book of the Dead we read of Osiris "who is at the head of the staircase," and in Chapter CXLIX the dead says: "I raise my ladder up to the sky to see the gods," with a vignette of a flight of stairs. Amulets of stairs are found as late as the Greek Period.

The Osiris-worshippers always regarded the west as sacred and blessed, and probably, therefore, it was the home-land whence the Osiris tribes came into Egypt. The dead are laid facing the west, according to the custom of looking to the home-land familiar among other races.

We reach at this point the beginning of the continuous civilisation of Egypt which can be traced every generation onward in unbroken order. The constant

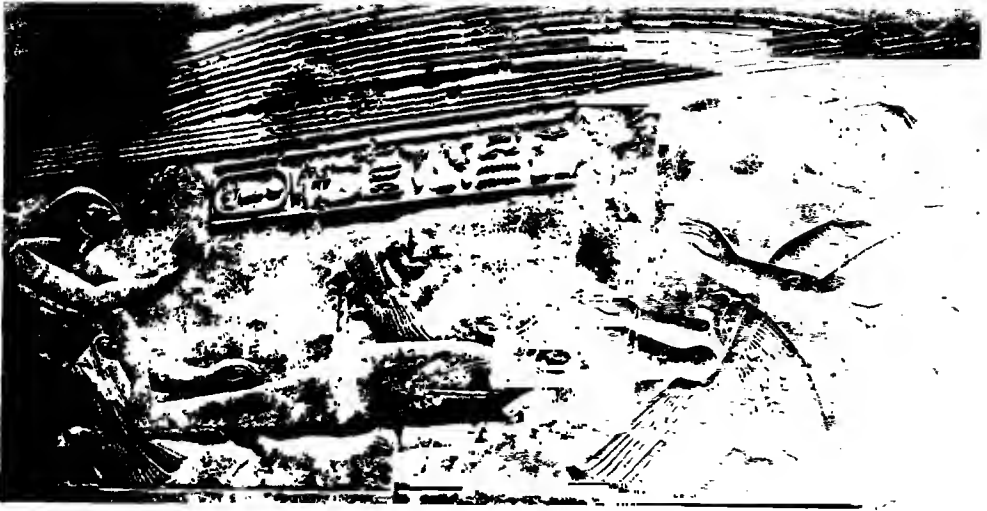
position of the dead in the graves, head to south, on left side, facing west, and the constant position in which the principal kinds of offering jars are placed, all show that a definite ritual of burial existed, and fixed views regarding the future.



16. Contracted burial of the age of MENA with offering jars. (Grave 1870, Tarkhan.)

The great feature of the Osiris mythology was his resuscitation after death. In the Pyramid Texts we read: "Though thou departest, thou comest again; though thou sleepest, thou wakest again; though thou diest, thou livest again." Isis and Nebhat are "thy two great and mighty sisters, who have put together thy flesh, who have fastened together thy limbs, who have made thy two eyes to shine again in thy head" (*Br.* 32). Hence, as the king and the dead were identified with Osiris, they shared in the same revival. The same process of reconstitution was needful for all the dead as for Osiris, probably descending from the custom of unfleshing and

cleansing the bones. As Breasted sums up: "We may summarise it all in the statement that after the resuscitation of the body there was a mental restoration, or a reconstitution of the faculties, one by one, attained especially by the process of making the deceased a 'soul,' in which capacity he again existed as a person, possessing all the powers that would enable him to subsist and survive in the life hereafter."



17. HORUS and ISIS resuscitating the mummy of OSIRIS UNNEFER. Abydos.

The development of the Osirian Kingdom of the Dead, and all its consequences, begins to appear in the Osirian revival after the Pyramid Texts, and so does not come into our view of the dead in the prehistoric time.

The next change was an invasion from the East which brought in many new elements of the second Prehistoric Age. The material culture changed considerably, the influences are proto-Semitic or Eastern, rather than Western as before. The sun worship of the god Ra became dominant, and probably centred at Heliopolis. Osiris had to give way; "Ra-Atum (Ra of the East) does not give thee to Osiris. Osiris numbers not thy heart, he gains not power over thy heart. Ra-Atum gives thee not to Horus. He numbers not thy heart, he gains not power over thy heart. Osiris! thou hast not gained power over him; thy son (Horus) has not gained power over him." Osiris was even arraigned and judged by Ra in the Great Hall of Justice at Heliopolis.

The East was the sacred region of these people from the East. The dead had to go eastwards to join the Sun-god, and they were warned from going westward. On the eastern border of the land lay the Lily-lake over which the dead must pass. Sometimes he is said to be ferried in a boat, and the boatman has to be bribed or cheated into taking him over; sometimes he has to paddle over on two floats of reeds, or even to swim, an idea older than the shipbuilding time of the second Prehistoric Age.

Amulets became common in this time, showing that magic was a prominent idea; and the dead possessed of amulets could thus compel the powers in the future to help him, and be preserved from evil. The idea of the necessity of purification before being fitted for the heavenly life comes forward in this period, but how far it was added to in the Pyramid Period it is difficult to say. The bathing in the sacred

lake was probably an early idea, and this bath in Lethe was considered to purify the dead so as to fit him for entry into the heavenly kingdom of Ra.

The conquest of Egypt by the dynastic race doubtless introduced some fresh ideas as to the future life. In the theology it brought in the abstract gods: the Creator, Ptah, and the personification of Truth, Maat; the universal Father Min, and the Great Mother, Hat-hor. But in the burials there was only a gradual change in the direction—from facing west to facing east. The reason that no more striking changes are seen may be that there had been a gradual infiltration of the fresh race—as shown by bone measurements—and therefore there was no great difference when the political power passed over to the later comers. The new gods were not associated with any views of the future, and therefore it may be that the belief in immortality was not held strongly by the dynastic people, and the older beliefs were not much changed.

On reaching the Pyramid Age, there is the great mass of the texts engraved on the walls of the Pyramids, under the Vth and VIth dynasties. The kings of this age were descended from the high-priesthood of the Sun-god Ra, and their devotion to him is specially shown in their worship and monuments. It is therefore to be expected that for the future life they should look mainly to Ra; and this must not lead us to suppose that all Egypt thought and acted like the Son of Ra who ruled it. There is nothing to show that the people in general shared the royal worship. On the contrary, the deity most usually found on private monuments is the deity of the dynastic race, the Great Mother, Hathor; while that most popular goddess does not appear in the royal ritual, except rarely, as a secondary manifestation of the great Sun-god. We must not therefore accept the Pyramid Texts as the Egyptian beliefs of that age; they were a mixture of all the preceding strata of beliefs, as accepted by the royal family of Ra-worshippers.

Though the devotion of the kings was chiefly offered to Ra, yet Osiris was steadily becoming more and more regarded. The name of Osiris was being inserted, sometimes along with gods of the Ra cycle, sometimes substituted for them, sometimes in a charm or prayer which was brought entire from the Osiris-worship. The old popular faith was gaining ground from the Ra-worshippers, and the dominance of Osiris drew nearer.

This brings us to the view of the “double” or *ka*, the relation of which to human nature has been most difficult to define. There is little doubt that there existed several different beliefs on this subject, revealed to us by incompatible statements of various periods. It may be well to look at a modern African belief of a similar kind, which having been stated in detail, may perhaps be somewhat of a guide. In Nigeria “every ordinary individual, male or female, is attended by a guardian spirit, who is looked on as a protector, is invariably of the same household, and with whom, when alive, personal friendship has existed. Every freeman is attended by a guardian spirit, usually the spirit of his own immediate father.” (Leonard, *The Lower Niger*, p. 190.)

In the Pyramid Texts we read that, on dying, a man “went to his *ka*”; the dead collectively are called those “who have gone to their *kas*”; and the dead “goes to his *ka*, to the sky.” Hereafter the dead associate with the *ka*, and might have dominion over other *kas*. The *ka* is superior to the living person. It was appealed to for protection, “call upon thy *ka*, like Osiris, that he may protect thee from all anger of the dead.” In the future world a person is under the dominion of his own *ka*. The *ka* helps by interceding with Ra for the dead, and introduces the dead to Ra. The *ka* brings food to the dead and eats with him. The dead person “lives

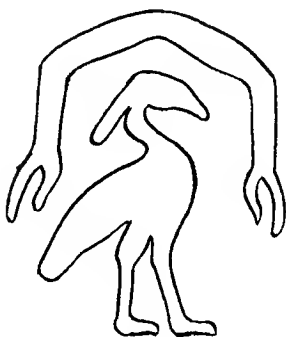


18. The figure of the KA of King Ramses III. On his head is the *ka*-name "the strong bull, the great one of kings." In his left hand is the emblem of the royal *ka*, a bust on a tall staff, with "*ka* of the king" upon it. In his right hand is a feather fan, with which he is fanning the king upon his throne. Here the *ka* is dissociated from the person, and is assisting him. Limestone temple scene, Koptos. (Univ. Coll., London.)

with his *ka*, who expels the evil that is before him and removes the evil that is behind him." The priest was the servant of the *ka*, who would pass on the offerings made "for the *ka*" to the dead, whom he supplied and protected. Such are the examples of the early belief about the *ka* given by Breasted, who concludes that the *ka* "was a kind of superior genius intended to guide the fortunes of the individual" (p. 52). Now this puzzling localisation by which the *ka* was the companion of the living, and yet the dead went to their *kas*, is explained by the Nigerian belief. There, the guardian spirit attends on the living, and yet is the spirit of one who is already among the dead. If the Egyptian *ka* was, like this, an ancestral manifestation, it would thus guide the living, yet in the future life the dead would go to the *ka*. It seems, then, best to regard the *ka* as an ancestral emanation which was associated with each man from birth, and by its superiority would guide and help him through this life and the next.

It is not known how early the *ka* was thought of as a Double of the material nature; in the XVIIIth dynasty the *ka* is represented as born like an infant, and growing with the man. This may have been the original notion: the portion of ancestral spirit developing with the individual in whom it dwelt.

On the tombstones of the Ist dynasty there is often placed the *aākhu*-bird, the "brilliant one," or glorified soul, with the arms (the emblem of the *ka*) embracing it from above. This would accord with references to the *ka* in the Pyramid Texts.



19. The *aākhu* bird, emblem of the spirit of the deceased, embraced by the arms of the heavenly *ka*. (Steles from Royal Tombs.)

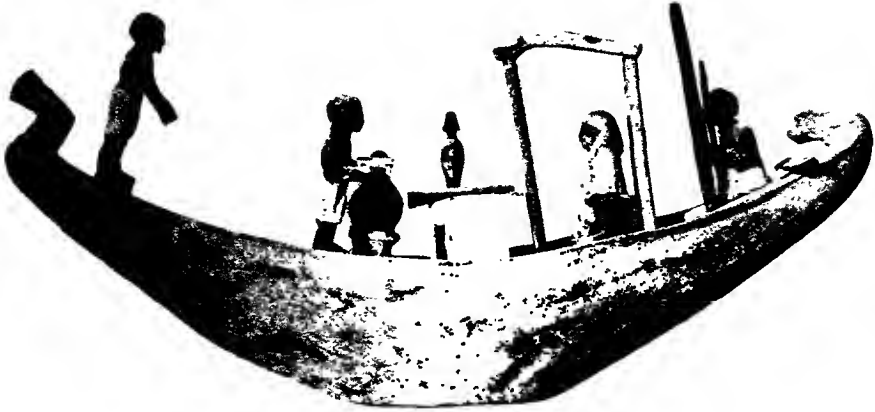
In the Vth dynasty there are other references to the *ka* in the Proverbs of Ptah-hotep. Various acts are hateful to the *ka*, such as staring at a man, losing opportunities of rightful enjoyment, or repeating expressions of passion. The son who resembles his father is said to be begotten by the *ka*. It is the *ka* that impels to generosity and kindness. Rather later, a king is said to be "loved by his *ka*." These statements may well be compatible with the guardianship by the ancestral emanation, or spirit of the family.

The tomb sculptures of the Pyramid Age show how completely the dead was supposed to enjoy all the possessions of this life in the future world. Every farm was to bring its produce; all the servants and animals of the household are shown; the games, the dances, the hunting and the fishing were all to be enjoyed in the future, and were portrayed on the walls of the tomb chapel for the spirit to take part in them.

The sense of divine favour in the future is stated: "I desired that it might be well with me in the Great God's presence." A definite judging of evil in the future was expected, as if any one damaged a tomb "judgment shall be had with them for it by the Great God, the Lord of Judgment, in the place where judgment is had." The righteous dead had the power of intercession with the Great God to favour others in the judgment: "I will intercede for their sakes in the Nether World."

In order to reach the boat in which the Sun-god sailed over the heavenly ocean, the dead was provided with a boat, so as to sail up to the Sun-boat and be taken in to the company of the gods. A model boat, or the sculptured or painted figure of one, was an essential part of the funeral furniture of the Ra-worshipper.

In one instance, there was a boat rigged for going up the stream, and another for going down the stream.



20. Boat for the dead to follow the Sun-god. The deceased is seated in a shrine ; before him is a table with a vase and a servant offering. (Tomb of Hori, phot. Insinger.)

After this age of great faith and great works, a wave of pessimism and agnosticism spread in the decline of that civilisation. They sang of the future life :

“None cometh from thence
That he may say how they fare,
That he may tell of their fortunes,
That he may content our heart,
Until we also depart,
To the place whither they have gone.

.

Lo ! no man taketh his goods with him,
Yea, none returneth again that is gone thither.”—(*Br.* 183.)

At the same time the disorder and misery of life was such that even death was welcomed :

“Death is before me to-day,
Like the recovery of a sick man,
Like going forth into a garden after sickness.
Death is before me to-day,
Like the odour of lotus-flowers,
Like sitting on the shore of intoxication.
Death is before me to-day,
As a man longs to see his house
When he has spent years in captivity.”—(*Br.* 195.)

These and many other lamentations over the corruption of the world, show the dissatisfaction which led men to reflect on the need of a future judgment to recompense the evils which they saw. It was amid such distresses that the belief in the Judgment Seat of Osiris grew into definite form. In that Judgment, Anubis,

the guardian of the dead, brought the deceased into the Judgment Hall. There his heart was weighed in the balance against Truth; and, if judged correct, he was then led by Horus into the presence of Osiris; if faulty, there stood Amam, the devouring crocodile-hippopotamus to consume him. It should be observed here that Osiris does not judge the dead; the judgment is entirely abstract, mechanical, independent of judicial choice. The fact of a man being righteous or unrighteous is not a subject of consideration, but is a definite fact not admitting of doubt. When once ascertained by agents of Osiris, then the dead is either admitted to the kingdom of Osiris or annihilated. There is no parallel here to the Christian view of the Last Judgment.



21. Occupations in the kingdom of Osiris. (NAVILLE, *Papyrus de Kanara*.)

Top.—Pulling up flax for making clothing.

Queen KA-MA-RA on her throne sailing in a ship at will.

The ploughman tilling the ground.

Base.—The reaper cutting corn, with a sack to carry the ears slung from his head.



22. Scene of the weighing of the heart. (NAVILLÉ, *Papyrus de Khamare*.)

The queen bringing her heart to be weighed.

Anubis weighing the heart against the feather of Truth.

Thoth recording the justification of the heart.

The Anam devourer below.

Csis and Isis prepared to receive the justified queen in the future world.

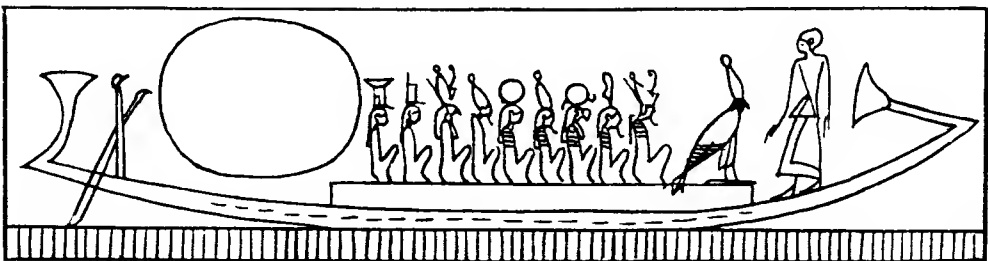
The nature of the future life in the Kingdom of Osiris is continually depicted in the Book of the Dead. Earlier than that is a song about those who are yonder in heaven with Ra :

“He who is yonder
 Shall seize the wicked as a living god,
 Inflicting punishment of evil on the doer of it.
 He who is yonder
 Shall stand in the celestial barque
 Causing the best offerings there to be given to the temples.
 He who is yonder
 Shall be a wise man who has not been repelled
 Praying to Ra when he speaks.”—(*Br.* 197.)

In comparison with this the Osirian heaven was very homely. The dead was promised that he should eat at his desire, remember what he had forgotten, have sandals for his feet, and repel the burglar and the early thief. He should have a house and pool and orchard, and all his household and children, brothers, father, mother, wives, concubines, slaves, and all his establishment, . . . “everything belonging to a man.” To this end, 400 figures of serfs to cultivate the land were supplied in the tomb, with elaborate instructions inscribed on each as to their duties.

In all this there is no confession of wrong-doing, no plea for mercy. The Egyptian boasts that he had done nothing wrong, he asserts his faultlessness from every sin he can recount, in order to prove that he is worthy. This purgation by assertion is a thoroughly Egyptian trait in modern times. He thus addresses the assembled gods :—“Behold, I come to you without sin, without evil, without wrong, I live on righteousness, I feed on the righteousness of my heart, I have done that which men say, and that wherewith the gods are content.”

So much for the official and priestly view of the future. But there lingered older beliefs in the popular heart. The food and drink was still placed in the grave, as it is even to this day. At the earlier part of the Osirian revival the dread of the dead coming out of the graves and haunting the villages, led to model houses being placed by the side of the graves for the soul to find shelter in. These pottery models of the dwellinghouse show the common buildings of the peasantry, with their lower and upper floors, their fenced roofs, air-shafts, furniture, food, and the domestic drudge who ground the corn. The soul, therefore, was thought of as wandering about from the grave, and needing shelter and a home.



23. The soul entering the boat of the sun, in which the nine gods are seated. (*LEPS., Todt., LV.*)

The comforting doctrine of accompanying the gods in the Boat of Ra, or living a social life of happiness in the Kingdom of Osiris, was overlaid by a crowd of invented horrors. Even the god Ra had to pass through a series of hours of darkness, regarded as dismal caverns, where evil spirits tried to waylay and overcome

the dead. Long spells and directions were therefore needed to enable such dangers to be repelled. The later religious guide-books to the Underworld consist mainly of details of such future perils, and the means of resisting them. Even the walls of the tomb, from the XVIIIth to the XXVIth dynasty, 1500-500 B.C., were sculptured with scenes, and directions for the terrible future, to the exclusion of all the old subjects of domestic life. It was no longer the enjoyment of a repetition of the



24. The singer of Amen, *DIRPU*, being led by the beneficent Bastet past the horrors of the infernal animals, and a bitch-headed spirit armed with knives and serpents. (Phot. Brugsch.)

present life that was presented, but the terrors of perils by demons. The so-called "Book of the Dead" is a conglomeration of all the charms which were deemed to be most needful. No two copies of it are alike; the scribe merely put together a more or less full series of those formulae which attracted him. Most of it is undoubtedly very early, containing allusions to prehistoric practices, but it is so overlaid by successive editings, variants, targums, and corruptions, that we cannot hope for a critical edition disentangling the various periods represented.

Such was the outlook on the future life, a complex of many incompatible beliefs, among which each person chose and combined what suited him, with a strong influence of fashion and priestly bias for one view or another at different times. Yet below all these beliefs lay the whole-hearted confidence in personal immortality which seems to have been so firmly held in almost all ages of Egyptian history.

All that we have noticed continued gradually to fossilise and become less personally real, until a new wave of influence spread over the world. The fresh movement was that of individualism, personal responsibility, and personal religion.

No longer was religion principally concerned with a public worship, it became a more personal devotion. With this went an ethical growth and a new value attached to the individual life. The earliest sign of this movement is in Hesiod, about 850 B.C., who was contemptuously called the poet of helots, from his honouring agriculture, which was held to be degrading to freemen. The preaching of simplicity in life, with pure and practical ethics, was the dawn of a new age. A century later, about 727 B.C., Piankhy the Ethiopian reconquered Egypt. He protested to his enemies: "If a moment passes without submitting to me, behold ye are reckoned as conquered, and that is painful to the king. Behold ye, there are two ways before you, choose ye as ye will; open to me, and ye live; close, and ye die. His Majesty loveth that Memphis be safe and sound, and that even the children weep not." When he entered a city after a siege he went personally to see about the horses, and when he found that they had been neglected and starved he swore, "By my life, so may Ra love me, I loathe the men who have starved my horses more than any abomination that the rebel has done altogether."

Isaiah shows the same growth of ethical feeling, and disregard of mere collective formalism. "Bring no more vain oblations, incense is an abomination unto me . . . it is iniquity, even the solemn meeting Wash you, make you clean, put away the evil of your doings" (i, 13-16). Rather later, Ezekiel, in 594 B.C., proclaims entirely individual responsibility; he repudiates the sins of the fathers falling on the children; "the soul that sinneth, it shall die. But if a man be just . . . he shall surely live" (xviii, 4-9). A century later Buddha preached his great system of individual responsibility and wide love for man resulting in ethical conduct. Even as far as China the same individualism rose up, shown in 340 B.C., when common field cultivation was abandoned, and private ownership began.

In Egypt, this new spirit in the world was largely influenced by the flow of Jewish, Persian, and Indian ideas, from the sixth century B.C. onward. The main documents that we have for this age are the Hermetic writings, which are dated by the political allusions in them, and were composed from 500 to 200 B.C. The earliest of these works, *The Virgin of the Kosmos*, probably about 510 B.C., describes the formation of souls from the Breath of God and Conscious Fire, blended with unconscious matter. These souls rebelled, and God then embodied them as men. The imprisoned souls lament, and are answered by God that if they are sinless they shall dwell in the fields of heaven; that if blameable then they shall be on earth; if they improve they shall regain Heaven; but if they sin worse they shall become animals. This metempsychosis is probably shown in some Egyptian judgment scenes, where a pig is being driven away as the vehicle of a condemned soul. The more righteous souls shall be kings, philosophers, founders of states, law-givers, etc.; the lower souls shall be eagles, lions, dragons, and dolphins. The gods are stated to dwell in the Aether with the sun and stars; in the air are souls and the moon; on earth are men and living things.

A slightly later work, *The Discourse of Isis to Horus*, states that the souls of men and animals are all alike; metempsychosis between men and animals is assumed; the soul is individual, the work of God's hands and mind, its congress with the body is a concord wrought by God's necessity; at death it returns to its proper region, between the moon and the earth.

Rather later, in *The Definitions of Asklepios*, the soul's rational part—*Logos*—is above the rule of daimons; and if a ray of God shines through the sun into it, the daimons do not act upon it. Here, then, the *Logos* is something added to the soul and a further change may take place in the *Logos*.

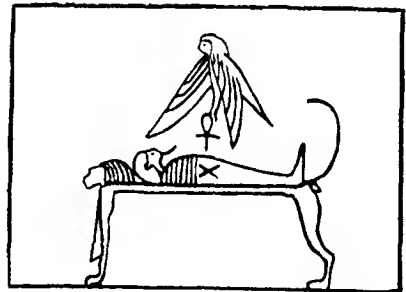
By about 340 B.C. we find in *The Perfect Discourse* a more complex psychology. Animals have bodies and souls, and are filled with spirit. In man sense and reason are added, as a fifth part. In part man is deathless, in part subject to death. When the soul leaves the body then the judgment and the weighing of merit pass into its highest daimon's power; apparently thus the judgment was transferred to the *ka*. If the soul is pious it is allowed to rest; if soiled with evil, it is driven out into the depths, to vortices of Air, Fire, and Water, between heaven and earth.

In the discourse called *The Font*, probably about 300 B.C., the nature of man is stated as excelling by reason of the *Logos*. *Logos* indeed among all men God has distributed. They who do not understand possess *Logos* only, and not mind. Thus *Logos* was animal reason, and Mind was a spiritual gift, which was acquired by spiritual immersion in the Font of Mind.

Rather later—but yet long before the Christian era—is *The Secret Discourse*, in which re-birth is stated to confer immortality; the natural body must be dissolved: the spiritual birth can never die. Here we cannot avoid seeing the Indian influence in the simile of conversion as re-birth. In the latest of this series, *The Shepherd of Men*, it is said that senseless men pass into darkness, their minds naturally return to primitive chaos. In the good, the Shepherd Mind is present, giving Gnosis and Religion, and enabling them to turn away from the world before death, and therefore never to die like others in parting from the world. The end of those who have gained Gnosis is to be one with God.

The Egyptian, therefore, had, by the mixture of Eastern philosophy, gained a stand-point approaching that of Christian times; indeed, it was the religious terms and conceptions of the Alexandrian School which formed the soil in which Christianity was planted.

We may sum up the pre-Christian idea of man as being an animal soul, in which Divine reason was implanted as a human distinction. That soul might yet go astray, and a special divine influence, symbolised by a ray of light, or immersion in the Font of Mind, or re-birth, was needed to save it from the evil influence of daimons. The evil suffered distress in the future, probably leading up to annihilation; the good were given a life of blessed rest. This is not far in advance of the Egyptian position some three or four thousand years earlier. It is the old Egyptian framework filled in with detail from Indian and other sources. Whether we look to the earlier or to the later time we see how far more modern were the Egyptian beliefs, than were the contemporary Hebrew ideas about a future life. We are the heirs of Egypt rather than of Hebraism in our Christian ideas.



25. The *ba*, or soul, holding the *onkh*, returning to the mummy to impart life to it. (LEPS., *Todt.*, XXXIII.)

PROF. W. M. FLINDERS PETRIE.

Notes for Advanced Students.

The stages of prehistoric civilisation can be linked with the stages of religious beliefs, which thus become sorted and dated.

The texts naming reed floats must precede the common use of boats.

The Pyramid Texts are the formulae of the royal Ra-worshippers, and did not necessarily represent the general beliefs.

The *ka* is explained by African beliefs as an ancestral emanation.

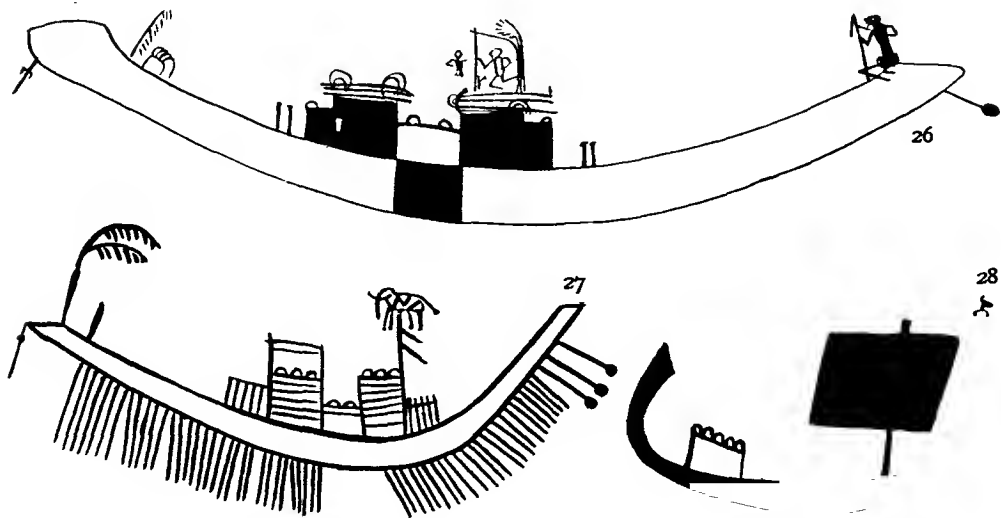
THE MYSTERIOUS ZÊT.

IN the version of Manetho's chronology that has been transmitted through Africanus, there is, at the close of the XXIIIrd dynasty, an entry that has raised a crop of conjectures. In place of any recognisable name of a king there is Ζήτ ἔτη λα',—Zêt, 31 years.

This Zêt is entirely unknown on the monuments, there is not a chip of stone or a flake of papyrus, a scarab or an amulet, to show his existence. He has been thought to be the Sethon, priest of Ptah named by Herodotos (II, 141), who places him after Shabaka, and therefore too late;—or possibly connected with the blind king Anysis;—or a contemporary of Bakneranf, a vague enough conjecture;—or to be the Saite Tnephachthos or Tafnekht;—or to be a corruption of the word "Saite";—or to be King Kashta, the Ethiopian. I confess to venturing the suggestion that this was a date from some earlier starting point, giving a summation of years. With some writers, of course, Manetho is the whipping-boy, who must always be flogged whenever anything is not understood.

We must always remember that we need to consider Manetho as a Greek manuscript, with the usual character and methods of any other papyrus of the Ptolemaic time. On reaching the period of disruption, when a dozen petty princes were dividing the land, it was hard to say who was to be mentioned as continuing the XXIIIrd dynasty. For thirty-one years no single ruler seemed to be predominant, further search was needed to settle who should be entered as the king of Egypt. So the honest "beloved of Thoth" put down Ζητέται "A question (remains) about thirty-one years," or "Query"; or perhaps some other derivative of Ζητέω, "I search after." A natural MS. abbreviation of this note of enquiry, like our "Qu.," was Ζητ. Hence the mysterious entry. It proves that we must include this thirty-one years in the history, although no one king can be assigned; and in the summary of the *Recueil* in this number will be seen how it falls into its necessary place in the dynastic history.

W. M. F. P.



26. Ship with cabins and steersman. (*Hierakonpolis*, LXXVI, LXXVII.)

27. Ship with three steering oars. (*Nagada*, LXVII, 14.) 28. Ship with sail. (CAPART, *Prim. Art.*, fig. 83.)

FOR RECONSIDERATION.

Onkh-em-mâdot.

WE purpose under this heading to take up in each number some of the various matters which need clearing up, by reference to facts which are little known, or disregarded.

GLASS-BLOWING.

In the days before the history of Egyptian manufactures was known, it was a very natural supposition on the part of Gardner Wilkinson that certain scenes represented men blowing glass bulbs on the end of rods (*Manners and Customs*, ed. 1878, Fig. 380). The upper one of the figures which he gives was evidently copied from the tomb of Baqta, No. 15, at Beni Hasan (*Beni Hasan*, II, VII), where it is by the side of the jewellers weighing with a balance. Unfortunately, this description of glass-blowing continues to be frequently brought up in evidence for the use of glass. Now, though thousands of pieces of glass vessels are known, especially about 1500-1400 B.C., yet there is not a single piece of blown glass dateable before Roman times. All of the earlier glass working was in a stiff pasty condition, and not fluid enough to be blown. The glass vases were made by building up on a core, which was afterwards scraped out. It is incredible that glass was blown when all the mass of specimens which we have, show that a different process at a lower temperature was universally used. The real meaning of these scenes is that the men are blowing up the small charcoal fires used by the jewellers; and, as the reed blowpipes would soon be burnt at the end, a lump of mud was put on as a nozzle to the pipe. Where two men are shown (*Manners and Customs*, Fig. 380) blowing into what seems like a vase upside down, it is certain that they could not be blowing a glass vase of that form; if blown it would be spherical, and such a form could only be made by rolling the blown bubble. What they are really doing is blowing up a small charcoal furnace inside a pot, probably to melt a crucible full of metal in it.

PAINTINGS OF PREHISTORIC TOWNS.

The frequent figures of structures upon the later prehistoric pottery were recognised at first as being clearly intended for ships, with a large number of oars, two cabins, and an ensign.

Another interpretation has arisen, supposing these figures to be intended for fortified towns. Even on any ordinary specimen, the absence of any base line below the oars which could be taken for the outline of a town mound, would be difficult to reconcile with the land interpretation.

When, however, we look at the critical examples, it will be seen that it is impossible to interpret them as views of towns:—

(1) The two ends are always different; for a town the two sides should be alike, in a boat the stem and stern differ.

(2) In the Hierakonpolis paintings there are no oars, except the big steering oar which is held by the steersman at the stern. A paddle such as this cannot possibly be figured as projecting from a town (see Fig. 26). On other examples there are three steering oars (Fig. 27).

(3) At the stem dangles the tying-up rope (Figs. 26, 27), still used universally in Egypt now. This cannot belong to a town.

(4) The form of one of the Hierakonpolis boats is exactly that of another painting (Fig. 28) on a pot, where a big square-sail marks it inevitably as a boat.

(5) A fresh specimen is here published, which I bought in Egypt lately (Fig. 29). On this is a structure from which four men are poling; with the shoulder against the pole end, and the weight of the body resting upon it, exactly as Nile boatmen pole a boat along at present. To suppose them fighting from a town in that attitude would be absurd; the action is precisely that of boatmen. This is a unique example of a great state boat with a row of passenger cabins on it; these are raised to a higher level, so as to be clear of the men working the boat. This specimen is now at University College, London.



29. Prehistoric vase painted with a scene of a large boat worked along by sailors poling. Above them is a row of cabins with figures of women in them. (University College, London.)


In the ordinary figures of boats, it may be explained that they have two cabins, sometimes with small cabins or animal pens attached. On these cabins are bent withies standing up, to hold in poles, oars, and other lumber, put out of the way on the tops of the cabins. Sometimes, as in Fig. 26, a shelter was put on the top of a cabin, with a branch of a tree over it to shade it from the heat. In the bows there is a seat for the look-out man, with a branch put over it to shade him from the glare. Whether these branches were young trees in pots, or cut branches, is not certain. If cut branches—as they seem to be—that would accord with the much greater frequency of timber in Egypt formerly, as shown by the common use of great quantities of wood in the Royal Tombs and elsewhere.

W. M. F. P.


PERIODICALS.

Recueil de Travaux relatifs à la Philologie et à l'Archéologie égyptiennes et assyriennes, Vol. XXXV, 1913.

Le X^e nome de la Haute-Egypte.—HENRI GAUTHIER. A long and valuable paper collecting and discussing all the geographical material about the nome between Assiut and Ekhnim. The ceaseless destruction of the ancient sites for *sebak* brought to light a large quantity of Greek and Coptic papyri about a dozen years ago, at a modern town known as Kum Ashqouh (or Ischgaou); Mr. Quibell inspected the place for the Government, and obtained also carved woodwork and other early Coptic remains. These discoveries fairly settled the main question of the locality of Aphroditopolis, as that city is usually named, in the documents found on the site.

The old nome standard is the serpent, with an ostrich plume upon its back , the distinctive mark of a sacred animal (see *Royal Tombs*, I, xxix, xxx; *Tarkhan*, I, ii). This standard is vocalized, both in the Pyramid Texts and the XIXth dynasty, as *Uâzet*, showing it to be the serpent-emblem of the great goddess of Buto. Variants in late times show two serpents, perhaps due to a confusion with the two gods named for the eastern side of the nome: see below. The only period of historical importance for this place was when it formed the northern frontier of the Theban Kingdom of the XIth dynasty, under Uâh-onkh Antef. From the VIth dynasty to Roman times forty-eight instances of the name are cited for this sacred name of the city.

The profane name Thebti, or the two sandals, is derived by tradition from the sandals made by Horus from the skin of Set, after his defeat near this place. Of this name ten instances are cited. The old identification of it with Idfu, started by D'Anville, was generally accepted until the papyri showed the site to be at Ashqouh.

The nome was divided into two parts, western and eastern. The latter was known as Neterui , because of the triumph of Horus over Set in this district, near Qau el-Kebyr. On the west bank was a place referring again to this traditional history, Ha-sehetept, "the place of causing peace"; and the high-priest was called *Schetept neterui*, "pacifier of the two gods." It seems probable that this place is the Greek Hisopis, which by the itinerary must have been near El-Maraghat. On the eastern side the main place was Antaeopolis, known as "the high-place," Duqa, Qây, or Tâqây. A dozen minor places are also named in the nome.

The divinities were Hathor, the Aphrodite of the Greek city name, Horus with Set, Maa-hes son of Bastet, Hor-se-ast, Mut, Osiris and Amen.

The western side of the nome was of no importance in Roman times, though Antaeopolis retained some attention on the eastern bank. The papyri are mostly of the Coptic and early Arabic period. The capital was the Coptic Jekôw, Arabic

Ashqouh. Antaeopolis became Tkôou, now Qau-kharab, or el-Kebyr. Apollonopolis is in the Coptic lists Sbeht, the modern Kum Asfeht. A very full series of all the mediaeval sources for the place-names is given, but does not materially add to the main conclusions.

Das Kolophon des liturgischen Papyrus.—W. SPIEGELBERG. This papyrus is of much palaeographic importance by reason of its exact date, March, 311 B.C. It begins with a long list of prophets, in office at Thebes and Diospolis Parva, which fills more than half of it; the remainder is not of importance.

Eine Schenkungsurkunde aus der Zeit Scheschonks III.—W. SPIEGELBERG. Two donation steles of Sheshenq III are here published, one in the Musée Guimet in type, and one in Berlin, both in type and photograph. They are dated in the 18th and 28th years respectively. The Guimet stele names a prince and general Tekilat, who is not otherwise known, and his mother Zed-bast-aus-onkh, a concubine. The main interest of each stele is in their naming a "royal son of Rameses," without any names. There are eight of these descendants known now, and their position is enigmatical. Why the XXIInd dynasty kings should have tolerated and put forward men who might claim to be political rivals is still unexplained. It is possible that the clan of royal descent formed a fixed aristocracy of the period, sufficiently united and powerful to command respect, but so numerous that their jealousies rendered them powerless politically. The two hundred children which may be ascribed to Rameses II would, in a stationary number of population, have permeated the ancestry of 100,000 or 200,000 by the time of the XXIInd dynasty; so, thus, the whole aristocracy of Egypt were probably entitled "royal sons of Rameses."

Note sur des pierres antiques du Caire.—G. DARESSY. The useful work of registering fixed monuments is here continued. The pillage of stone from the temples of Memphis, Heliopolis, and other places, for the building of Cairo, has scattered pieces of all ages through the public and private structures of Arab date. Here are described:—

1. Block of granite with part of a list of temple statues, naming material and height. Saite.
2. Block of granite, part of a great table of offerings of Rameses II.
3. Block of granite of Aahmes-să-neit.
4. Piece of six-lobed lotus column of sandstone, of Amenhetep III, surcharged by Merneptah and Setnekht.
5. (Photograph.) Marble shrine of Isis of Greek period. The goddess is on a throne of winged lions, a priest offering before her, another standing behind holding a ram-headed wand. The priest and altar have a likeness to the subject on Persian gems, and the architectural style might well be late Ptolemaic. M. Daressy would however place it in the second or third century of our era.

Monuments Egyptiens du Musée Calvet à Avignon.—A. MORET. This Catalogue is continued from the previous year.

The monuments are as follows:—

XXII. Stele with seated figure of Mentu holding falchion and shield; dedicated by Ptahmes and his family: XIXth dynasty.

XXIII. Stele dedicated to the goose of Amen.

- XXIV. Stele dedicated to Osiris, by a woman Petes.
 XXV. Stele to Osiris by an hereditary prince and vizier.
 XXVI. Stele to Osiris by Peduast.
 XXVII. Stele to Hor-em-aākhuti, by Hor-khred-meh.
 XXVIII. Stele to Hor-em-aākhuti, by Zed-khonsu-au-onkh.
 XXIX. Stele to Osiris by a singer of Amen.
 XXX. Stele of Horus on the crocodiles, with long inscription, in which occur weird names such as are found in the late magical documents—Shardshek, Berker, Arourouari.
 XXXI. Fragment of basalt statue, probably XIIth dynasty.
 XXXII. A clay tablet, 6 × 3·3 inches, with four columns of finely drawn hieroglyphs, the columns reading retrograde, like the great inscription of Rekhmara. The inscription is the CLIB Chapter of the Book of the Dead, for the Vizier User, son of the Vizier Odytu. The parallel texts are given, comparing this with five other versions, which are all later. User lived early in the reign of Thothmes III, and was not only son of Odytu, but uncle of the Vizier Rekhmara. His complete name was Amenuser. References are given to other publications.
 XXXIII. Base of a statue of Amenhetep III, naming his *sed*-feast.
 XXXIV. Piece of seated figure of Nekht, the chief overseer of the prophets.
 XXXV. Statue of Huy.
 XXXVI. Statue of Hora, son of Bakamenra.
 XXXVII. Statue, name lost.
 XXXIX. Statue of Shem(?), of Koptos.
 XL. Piece of granite obelisk of Rameses II.
 XLI. Piece of statue of Seker.
 XLII. Votive pyramid of a scribe of the temple of Anher, Nesmin son of Mertheru, about XXIIIrd dynasty; with a long inscription giving five generations.
 XLIII. Table of offerings of Hor-se-ast, prophet of Anher.
 XLIV, XLV. Small tables of offerings uninscribed.

Notes de Grammaire.—P. LACAU. A continuation of comments on grammatical points drawn from the writer's wide experience and reading, but seldom touching matters of general interest. On the origin of number signs it may be noted that all unit signs were originally written as horizontal strokes, not vertical; this has led to some false readings when the custom was forgotten. The names of the various signs for each place of figures from 10 to 10,000,000 are all shown to be indicated by phonetic signs homophonous with the name of the number. In the higher values the connection is plain; for the cord the name *set* is assimilated with *shet*, 100; and for the cattle tether the name *mest* is taken from *mez*, 10.

There are also some interesting notes (p. 223) on the nature and use of various signs, especially with reference to Dr. Erman's list. The so-called bier in the late writing of the name of Osiris, is really a chair, merely a variant form of the throne *as*. The whole of these eight pages should be carefully noted in any study of the forms and variant values of signs, being full of references and examples.

Zwei demotische Urkunden aus Gebelén.—W. SPIEGELBERG. These two contracts are now at Strassburg. One has a Greek tax-receipt, and is dated in the 33rd year of Ptolemy Lathyrus. A great part of it is occupied with an immense protocol of the Ptolemaic priesthoods; the business is the sale of a small plot of land in the south of Pathyris, of about 3,500 square feet, but no price is

named. The second papyrus is dated in 103-2 B.C. under Ptolemy XI, Alexander, and Berenice III; it is a contract of sale of a mare, but, again, no price is named.

Der Isistempel von Behbit (2te Teil).—C. C. EDGAR and GÜNTHER ROEDER. The immense tumbled pile of blocks of red granite which marks the site of the great Iseum, is the result of mining out all the limestone for burning. No attempt has been made to copy and publish all the sculptures, but the above authors have made a hand list of the blocks and copied the longer inscriptions. The list is continued in the present paper. It is necessarily a work more of piety than profit. The only satisfactory thing would be to draw all the blocks, with note of position and probable connections, and then refit the scenes. This might result in a general view of the whole system of the sculptures.

La Fabrication du vin dans les tombeaux.—PIERRE MONTET. In the Old Kingdom only dark grapes are represented, and the wine must have been red. At Bersheh in the XIIth dynasty white grapes are seen, and the juice is light, such as would make white wine. Most of the paper is occupied with the examples of extraction of the juice from the crushed grapes by wringing the mass in a twisted cloth. The force was applied by twisting the cloth with two poles, each held by two men; to prevent it drawing together into a knot, a fifth man forced the poles apart with his hands and feet. The fixed frame to hold the cloth, and twist it from one end only, first appears in the XIIth dynasty, and was but gradually taken into use for wine making. The writer does not notice a large drawing of a fixed frame in the temple of Sety at Abydos (CAULFEILD, *Temple of the Kings*, XX, 4).

Inscriptions historiques Mendésiennes.—G. DARESSY. The Roman buildings of Egypt are incessantly being destroyed for the sake of re-using the bricks; indeed, the Department of Antiquities sells the right of destroying Roman buildings, without any examination or knowledge of what they may be. In the course of this destruction of antiquities, a stray block of re-used sandstone was found at Mendes, bearing two inscriptions of the XXIIIrd dynasty. These relate to important persons hitherto unknown, as indeed the history of this region has scarcely been touched. First, there is a general Hor-nekht; his son was the governor Nesi-ba-neb-daddu, who married the priestess of the Ram of Mendes Khau-sen-ast, and had a son, the governor Hor-nekht. M. Daressy would see in one of these Hor-nekhts the personage named in the beginning of the Story of the Breast-plate; but the period seems to be different. The Story of the Breast-plate is dated by the names of three rulers being the same as those of Esarhaddon's vassals, which ties it to shortly before 670 B.C. The present inscription names both the first and second Hor-nekht as "great chief of the Ma(shauasha)," a title which was usual in the XXIIInd dynasty and lasted down to the time of Piankhy, 725 B.C. This title suggests that the Hor-nekht here is of an earlier generation than the time of Esarhaddon. A very curious phrase is that the god Ba-neb-daddu "appoints to his Tanites (*Khent-abtiu*) that they should acknowledge Hor-nekht as master of the temple." This shews that Tanis was at this time subject to Mendes.

The second inscription is dated in the 11th year of a king whose cartouches have never been filled in. This strange omission cannot be accounted for by political uncertainty, or the number of the year would not have been inserted, nor would it have shown so long a reign. We can only suppose that the precise form

of the royal titles was not known to the scribe. This is a record of the joyous entry of Hor-nekht into Mendes. They seem to have had a right of popular acceptance of a ruler, as it is said that they "approved his father when he took possession," and they rejoiced when the great heir of his house was in his rightful place. Evidently there had been a civil war, as Hor-nekht is said to have beaten his competitor.

Notes sur les XXVII^e, XXVIII^e et XXIV^e dynasties.—G. DARESSY. This paper shows how little we know for certain about the period. There are more than thirty documents quoted, and from these is put together a tentative table of two continuous and independent lines of kings of the Delta and kings of the Thebaid. Stress is laid on contiguous or overlapping reigns having the titles "Divine prince of Thebes" and "Divine prince of Heliopolis," as implying separate rule. As, however, such titles do not imply only a local rule in the XVIIIth–XXth dynasty, they need not do so here. The two essential matters are (1) the genealogy of Uasarkon I, father of High-Priest Sheshenq, father of High-Priest Horsăast, the latter occurring in the 6th year of Sheshenq III, *se-bast*; (2) that the 1st year of Pedubast was in the 7th year of Sheshenq III. These facts must bring Pedubast back to about a century after the beginning of the XXIIInd dynasty, and thus force the XXIIIrd dynasty to overlap the end of the family of the XXIIInd dynasty.

Before accepting the entire change of there being two rival lines throughout, it is well to see how far the new facts compel alterations in the simple list already recognised. Taking that in the *Student's History of Egypt*, there are no fresh facts incompatible with the outlines of the XXIIInd dynasty there stated. The change required is in the rise of the XXIIIrd dynasty. The High-Priest Horsăast, grandson of Uasarkon I, assumed the royal title in the Thebaid (Koptos), and is probably the father of Pedubast, who began his reign in the 7th year of Sheshenq III. Perhaps the independence of Horsăast started with Sheshenq III, as his father Takelat II, *se-ast*, certainly ruled the Thebaid. Thus the XXIIInd dynasty ruled alone for at least 115 years, or rather more. This points to the 120 years' total of Africanus being the true length of the dynasty. Then the last three kings Sheshenq III, Pimay, and Sheshenq IV were overlapped by the XXIIIrd dynasty, and were accordingly not counted in the chronology of Manetho.

In the XXIIIrd dynasty there must be added a Takelath, for at least fifteen years, between Pedubast and Uasarkon III. The main question now is the filling of the time. Sheshenq I began his reign about 952, or perhaps later, if his Judæan campaign was long before the sculpture of it at Karnak. Possibly it might be ten years earlier, and if so the reign began 942. Shabaka began his reign 715, so the XXIIInd–XXIVth dynasty should cover 237 or, at least, about 227 years. If there be 120 years in the XXIIInd, and six years in the XXIVth, the XXIIIrd dynasty must have been 111 years, or rather less. We have on record: Horsăast 6 years, Pedubast 40 years, Takelat 15 or more years, Uasarkon III 8 years, Psammus 10 years, and the entry of Zêt 31 years, making up 110 years. Thus it is essential to retain the period of Zêt to fill up the total period. As to the meaning of this entry some account will be seen in another article of this Journal. The probable results, following the older view and Africanus, stand as follows, stating the length of reign up to the beginning of a co-regency:—

XXIIND DYNASTY.

Sheshenq I	B.C. 952-930	} 120 years Africanus.
Uasarkon I	...	...	930-900
Takelat I	...	...	900-877
Uasarkon II <i>se-bast</i>	...	...	877-854
Sheshenq II	...	...	854-854
Takelat II <i>se-ast</i>	...	...	854-832

XXIIIRD DYNASTY.

Sheshenq III	...	...	832-781	Horsäast...	...	...	832-826
				Pedubast...	...	...	826-786
Pamay	...	...	781-781	Takelat III <i>heq uast</i>	...	...	786-770
				Uasarkon III	...	...	770-762
Sheshenq IV	781-744	Psammus	762-752
				Zêt	752-721

XXIVTH DYNASTY.

Bakennauf	721-715
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XXVTH DYNASTY.

Shabaka	715-
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Thus the XXIInd dynasty was truly reckoned at 120 years by Africanus, and the XXIIIrd dynasty was 89 years as in Africanus, plus 6 years of Horsäast and 16 years of Takelat III, omitted by Africanus.

On the other hand, abandoning the stated reckoning, the loose fragments are adjusted by M. Daressy as follows, going back from Shabaka at 715 B.C.:—

Delta.				Thebaid.			
Sheshenq I	...	...	941-920				
Uasarkon I	...	...	920-880	Takelat I	...	...	905-880
Uasarkon II	...	...	880-857	Horsäast...	...	...	-851
Sheshenq II	...	...	857-837	Pedubast...	...	...	851-826
Anput	...	...	837-832	Sheshenq IV	...	...	826-821
Sheshenq III	...	...	832-780	Takelat II	...	...	821-791
Pimay	...	...	780-768	Uasarkon III	...	...	791-760
Sheshenq V	...	...	768-729	Uasarkon IV	} ...	...	760-
Tafnekht...	...	...	-721	Takelat III			
Bakenranf	...	...	721-715	Piankhy	...	...	746-

Zwei Käuferträge aus der Zeit des Königs Harmachis.—W. SPIEGELBERG. These two demotic documents are of historic interest as they are dated in the 4th year of King Har-em-aäkhuti, an Ethiopian king of Thebes. The same notary who drew up these documents, Pedyamenapt son of Pedy-amen-nesut-taui, is also known to have drawn up documents in the 12th and 15th years of Ptolemy IV, Philopator, 210-207 B.C. We therefore know that this Ethiopian king probably held Thebes within about twenty-five years of that time, say somewhere between about 235 and 185 B.C. Coins of Ptolemy III and IV were found with these documents, quite confirming the general period. Dr. Spiegelberg believes that this king preceded Onkh-em-aäkhuti, who is also known in Theban documents.

Let us now turn to what is known of the general history. We find that, at Philae, Ergamenes the Ethiopian built between the works of Ptolemy IV and V, showing that the Ethiopian occupation there lay somewhere between 220 and

182 B.C. At Dakkeh Ergamenes built the inner part, and Ptolemy IV the outer part of the temple; probably, therefore, he did this within the reign of Philopator, 222–204 B.C. And not only Ergamenes, but also his successors, must have been within these limits, for Ptolemy IV to have re-gained Dakkeh again after them. As we cannot put these three Ethiopian kings between 207 (the dating by Pedyamenapt under Philopator) and 204 the end of the reign, it seems they must have ruled between 220 and 210 B.C. Probably the whole force of Egypt was needed in Syria to resist Antiochus in 219 B.C. and onward, and it was then that Ergamenes occupied Upper Egypt, and was succeeded by Hor-em-aakhuti and Onkh-em-aakhuti before 210 B.C., at which year the scribe dates again by Philopator. The Edfu inscription does not disprove this, as it was written at the close of Philopator's reign, and naturally ignored the rule of the usurpers who had passed away.

Returning to these papyri, which were found in the Earl of Carnarvon's excavations at Thebes, one is for the sale of a small plot (430 square feet) of town land, and the other for the sale of two acres of agricultural land. According to the cautious habit of that age no price is named, only a statement is made that the buyer is fully satisfied with the silver received. This omission of what is usually considered an essential part of a sale contract may have been due to evading a part of the percentage of government tax on sales, or avoiding an opening for future litigation about the full receipt of the amount. Each contract is signed by the usual sixteen witnesses. The details of the boundaries are so full that—as in the case of the Aswan Aramaic papyri—a plan of the region can be drawn from the description.

Recherches sur la famille dont fait partie Montouemhat.—GEORGES LEGRAIN. (Continuation.) 2^{me} partie, *Les Enfants de Khaemhor. Branch Nsiptah.* The separate documents are numbered.

27. Part of a table of offerings of Amenardys, daughter of King Kashta, and her mother Shepenapt, daughter of King Uasarkon. Names Mentuemhat born of Nesptah and Ast-khebt.
28. Table of offerings of Mentuemhat born of Nesptah.
29. Base for a statue, of the same.
30. Another base, of the same.
31. Fragment of a statue of Mentuemhat.
- 32–3–4. Half discs with inscriptions of Mentuemhat; naming also Harmerti, son of Mert-ne-horu, son of Hor.
36. Fragment of black granite statue of Hor, son of Mentuemhat, son of . Nesmin; not the preceding man.
37. Headless statue of Mentuemhat, found in the temple of Mut.
38. Statue of Mentuemhat, of black granite, at Berlin.
39. Bust of Mentuemhat; temple of Mut.
40. Table of offerings of Mentuemhatsenb, XXVIth dynasty.
41. Bricks of Mentuemhat, probably from his tomb.
42. Ushabtis of Mentuemhat.
43. Genii of the tomb of Mentuemhat.
44. Tomb of Mentuemhat, published in *Mem. Miss. Française du Caire*, V, 613. List of titles quoted here.
45. Fragment of scene apparently from the tomb of a Prince Mentuemhat.

REVIEWS.

Development of Religion and Thought in Ancient Egypt.—By JAMES HENRY BREASTED, Ph.D. 8vo. 7s. 6d. xix + 379 pp. (Hodder and Stoughton, 1912.)

This is the most important book that has appeared for many years past upon the religion of Egypt. It gives the first translations and summary of the Pyramid Texts, from the parallel versions issued by Dr. Sethe. Till now there has only been the original edition of Sir Gaston Maspero, with his first French translation, which was of the greatest value twenty years ago. By now, a fresh handling of the subject is wanted; Dr. Sethe has finished his parallel edition of all the versions in different pyramids; Prof. Breasted here summarises the whole view of these oldest religious documents, and we only now wait for the complete translation promised by Dr. Sethe, which all scholars will hope may not long be delayed.

Dr. Breasted begins with an outline of the influence of Nature on the religion, the dominance of the Sun-god, Ra, and the power of the Nile under the form of Osiris. Osiris has been many things to many people,—god of the dead, god of vegetation, the Nile-god, the deified law-giver. A new Plutarch might write as puzzled and confused account of him as did the ancient speculator, and find as many possibilities of explanations. This book gives plenty of passages enforcing the connection with the Nile; but, not to be one-sided, these are followed by references to Osiris as the Sea, as the fertile soil, and as vegetation. An outline of the Osiris, Isis, and Horus myth follows, the usual late version of which is supported by passages from the Pyramids.

Having dealt with the mythologic basis, the next chapter treats of the life after death, the primitive tomb dwelling and the later theologic developments. The view of the *ka* as being in heaven and protecting the dead in the future is strongly supported. Yet the figures which show the *ka* as born and growing with the person need to be reconciled with this; and, indeed, it is difficult to separate the *ka* from the personality. The Nigerian belief in the ancestral spirit, in-dwelling and acting as the guardian in life and in death, seems to reconcile all the statements, as has been pointed out in a previous article.

The description of the Pyramid Texts follows. These oldest religious documents are shown to be extremely composite, built up of beliefs of three or four civilisations; the nature of their contents are classified as: (1) Ritual of the funeral and subsequent offerings. (2) Magical charms. (3) Very ancient ritual of worship. (4) Ancient religious hymns. (5) Fragments of old myths. (6) Prayers and petitions on behalf of the dead king. Their historical classification has been dealt with in the Drew Lecture, published in this part, and will therefore not claim our notice further. The next chapter shows how the earlier Osiris beliefs were overcoming the Ra religion, and being incorporated with it.

Leaving the Pyramid Age, Prof. Breasted then launches into the reaction from faith in magic powers, and sketches the disillusion of men on seeing the futility of the pyramids and tombs; this is reflected to us in the songs, the dialogues, and the laments of an age without hope.

The growth of a belief in future recompense is then traced, as forced on men's minds by the imperfection and injustice of this life. The Osiris-worship of the primitive people became much amplified; the inequalities of conditions here were believed to be rectified by the examination which condemned the evil and allowed the good to go to Osiris. The most original and powerful part of the book is a restoration of the scenes of the funeral feasts, from the details given in the endowment lists. Here Prof. Breasted has done what every scholar ought to do with his knowledge, applied it to restore the past to our imaginations. Such a sketch from one who knows all the sources, however uncertain some detail may be, is far better than leaving readers entirely in the dark as to the sense and value of a list of details.

The astonishing and brilliant episode of the Aten-worship—the greatest idealism in the world before Christianity—is described, none too fully. Lastly, the rise of individual religion is sketched, but without coming down to the Alexandrian development under Oriental influence, which is the most important to us.

We must heartily congratulate the author on this volume. It shows throughout the first qualification for writing on the religion—a sympathy with the different beliefs on religion and ethics—a requirement which has hitherto been almost the prerogative of Dr. Wiedemann, and which has been lamentably absent from some other works on the subject. Scholastic precision may translate business documents, but something much larger is needful when we come to human faiths and feelings. Dr. Breasted has that needful something, and it would be fortunate if he would apply it to a translation of the whole Pyramid Texts, and an historical analysis of their various origins.

Papyrus Funéraires de la XXI^e dynastie. Le Papyrus hiéroglyphique de Kamara, et Le Papyrus hiératique de Nesikhonsou, au Musée du Caire.—ED. NAVILLE. 4to, 38 pp., 30 plates. (Leroux, Paris, 1912.)

This beautiful publication is the finest yet issued on the Book of the Dead. The plates exceed in clearness even those of the papyrus of Iouiya, issued by Prof. Naville five years ago. We are indebted to this volume for two illustrations here (Figs. 21, 22), which will show how successfully the rendering of the papyri has been made. The papyrus of Queen Kamara (often called Ra-ma-ka) of the XX1st dynasty has long been known from some photographs of parts of it. It is here given on ten plates, which comprise Chapters 1, 6, 77, 79, 82, 83, 85, 86, 87, 99, 100, 105, 110, 123, 125, 138, 144, 146, 148, 149, 150, 151, in a very irregular order, beginning with Chapters 151 and 6. One very short new chapter appears, compiled out of sentences from well-known passages. Prof. Naville adheres to the old view that Mut-em-hat was the infant child of Queen Ka-ma-ra, and is much surprised at her having the full titles of royal wife. But there is nothing to show that Mutemhat was not the personal name of the great heiress-queen who took the royal cartouche Ka-ma-ra; exactly as Hatshepsut took the same cartouche long before. The name Mutemhat occurs twice in the papyrus, in just the same manner as the name of Kamara, without any suggestion of being a different person. On the sarcophagus the two cartouches are set out together side by side with their preliminary titles. We do not really know the name of the infant who was buried with Queen Kamara Mutemhat.

The papyrus of Nesikhonsu I, wife of Pinezem II, is not such fine work as the preceding. It occupies thirty plates, with some fairly good scenes and figures.

It contains the Chapters 1, 2, 4, 5, 6, 10 or 48, 17, 31, 38, 41, 55, 63, 65, 77, 81, 82, 83, 84, 85, 86, 96, 97, 98, 99, 100, 102, 103, 104, 105, 107, 109, 110, 111, 112, 113, 125, 136, 153. It is much to be hoped that Prof. Naville will publish further texts in the admirable manner of these plates.

Christian Antiquities in the Nile Valley.—SOMERS CLARKE, F.S.A. 4to. 234 pp., 56 plates, 42 figures. (Clarendon Press, Oxford.)

In no land is Christian architecture so neglected as in Egypt; fortunately it has now found a competent recorder in the former architect to our St. Paul's Cathedral. Mr. Somers Clarke has for years past hunted over 1,400 miles for the little neglected shrines from Soba down to Antinoe, pathetic relics that have survived twelve centuries of continued persecutions.

In this volume are full plans, many sections, and some elevations, beside maps; but it is difficult to grasp the full amount of work collected here, as there is no table of contents, and the churches are not numbered. A very full index partly compensates for this difficulty. The main interest to most readers will lie in the two grandest buildings, the White and Red Monasteries near Sohāg: of these a considerable account is given, pending the great official publication which is some day to come. Not only is the long line of churches great and small described here, but the use and system of them is considered, and an account of the present method of building illustrates the actual construction. It is, indeed, fortunate that the churches have found a recorder, before they further disappear. A zealous photographer could not do better than take this volume for guide book, and put on permanent record the architectural appearance of all the buildings.

The Fate of Empires.—A. J. HUBBARD, M.D. 8vo., 220 pp. (Longmans.)

Though this book only refers secondarily to Egypt, yet its principle of "an inquiry into the stability of civilisation" is so wide-spread that it needs notice here, as enabling us to see the meaning of Egyptian civilisation. The author's main view is the distinction of two opposing forces in all civilisations. One force is the Family Instinct, which looks to the exaltation of the Race, past and future, under religious sanctions. The other force is the Social Instinct, which looks to Society as an end, and makes the immediate interests of the present dominant under selfish Reason. Each of these forces is needful for the general welfare.

Their effects are shown by their excesses. If the Family overpower Society the result may be seen in Egypt, and now in China, with its immense overcrowding, lack of national solidarity, and all ends and means justified by the family benefit. This form of life is, however, permanent, and capable of bearing almost any shocks and troubles without collapse. If Society overpower the Family the result is seen in the Roman Empire, where the height of felicity was to exhaust all capital and possible means of pleasure for the present individual, totally regardless of the Race. Socialism is the form of this order of things, and the result is extinction. The author concludes that no civilisation founded on purely selfish Reason can be permanent; and that the family instinct, and its religious sanctions, are necessarily essential to any lasting system of racial existence.

NOTES AND NEWS.

THE British School of Archaeology in Egypt has for several years been steadily clearing the country from Cairo southward. Various existing rights of excavation have stood in the way, and have been respected by leaving such sites in their present state of neglect. But the series of clearances made at Gizeh, Memphis, Mazghuneh, Shurafeh, Tarkhan, Riqqeh, Gerzeh, and Meydum have opened up and published every site of this region which is not kept waiting for other excavators. In the coming season this work will continue further southwards. One camp will begin on the Gebel Abusir at Harageh, where an immense cemetery of the XIIth dynasty lies still untouched in modern times. This part of the work is in the hands of Mr. Engelbach, who did so well on the cemetery of Riqqeh last year: he is at present helped by Mr. Guy Brunton, Mr. Battiscombe Gunn, and Mr. Willey. Another very promising subject is the small pyramid adjoining that of Senusert II at Lahun. Twenty-five years ago, Prof. Petrie found the core of this pyramid, and cleared over the whole region of it without reaching an entrance. He is now going to return, with clues which have come to light since that time. As this pyramid is probably that of the queen of Senusert, it may prove of much interest. This work will be joined by Mr. and Mrs. Brunton, Rev. C. T. Campion who worked at Tarkhan last season, Dr. Amsden, and Mr. F. J. Frost. Mrs. Flinders Petrie will again undertake the drawing of the antiquities during the season, as in each year.

Dr. Reisner will carry on his great clearances at the Pyramids of Gizeh, on which he has been engaged for so many years.

Mr. Quibell is continuing the excavations at Saqqareh for the Egyptian Government. He expects to clear a cemetery of the Roman Age this winter, if an important change should not officially supervene.

Mr. Mace will be at work on the pyramid of Amenemhat I at Lisht, in continuance of the work of the Metropolitan Museum of New York.

Dr. Borchardt will excavate between El-Badari and Hawara in the Fayum.

The Italian work will be at Kum Ghirzeh near El-Rodah in the Fayum.

Further south, Mr. J. de M. Johnson is going to excavate at Antinoe, for the Graeco-Roman Branch of the Egypt Exploration Fund. It is hoped that such an important Greek city may yield papyri, although it has been much searched.

Mr. Blackman will continue the work of the Archaeological Survey at Meir.

The German work will be renewed which was so successful last season at Tell Amarna, where a sculptor's workshop was found.

Daninos Pasha will take up the search at Eshmuneyn, in furtherance of the discoveries made there in recent years.

Antaeopolis (Qau el-Kebyr) and five miles southward to Nawawrah will be the ground of Prof. Steindorff's excavations.

Further south still, the Egypt Exploration Fund, in resuming the work on the Osireion at Abydos, has sent Mr. Wainwright (who has earned his spurs in the British School) to carry on the excavations, which will be directed by Prof. Naville, assisted by Prof. Whittemore. It is hoped this season to push on the clearing of this great subterranean structure up to its contact with the Temple of Sety. The subsidence in the axis of that temple (published in 1902) naturally leads to the idea that some subterranean structure underlies it. The copies of the Sinai inscriptions, which were made in 1905, are now being finally arranged for publication by Mr. Eric Peet and Dr. Alan Gardiner.

At Thebes there will be the usual concentration of workers. Mr. N. de G. Davies is continuing the great task of preserving the paintings in facsimile copies. Mr. Howard Carter continues the work of the Earl of Carnarvon at El-Birâbeh, Mr. Winlock for New York is working out the palace of Amenhotep III at Mayata. Mr. Lythgoe continues the work at El-Asasif. Mr. H. Barton is working for Mr. Theodore Davis on the south of Medinet Habu temple, Dr. Möller for Berlin will probably work at Der el-Medineh, Mr. Robert Mond has organized the very necessary work of clearing, repairing, and photographing the painted tombs of Thebes, which are so priceless for their pictures of Egyptian life. Mr. Mackay (who so long worked with the British School) is now carrying out this work in a systematic manner, one of the most needful tasks, which ought to have been performed long ago by the Government.

At Aulad Yahia in Nubia Mr. West will begin excavating.

Rumours are afloat that a royal tomb was robbed last summer; and that the obelisk of Senusert I, which has stood in its place for 5,000 years at Heliopolis, is to be desecrated to ornamenting a garden in Cairo! It may be a question whether the fallen colossi of Memphis are best in their place, or in city squares; but to carry off the oldest obelisk in Egypt, which has stood in its own place unmoved through most of history, for a trivial piece of decoration which will be out of date in a few generations, would be a degradation of antiquity.

THE EGYPTIAN RESEARCH STUDENTS' ASSOCIATION.

THIS Association was founded eight years ago for the large number of persons who wish to keep in touch with research in Egypt. It is expressly connected with the British School of Archaeology, to which it contributes, and by which it is supplied with travelling series of small antiquities sent on loan to the various branches. Reports on the current work are also supplied to the meetings. Anyone wishing to open a local centre should apply to the founder, Mrs. Sefton-Jones, 18, Bedford Square, London. The papers for the present season are here given, with the addresses to which application should be made for membership (3s. or 4s. yearly).

LONDON. (Hon. Sec., Mrs. Sefton-Jones, 18, Bedford Square, W.C.)—First Meeting, Oct. 15, at the above address; 8 p.m., tea and coffee, 8.30 p.m., lecture: Prof. Flinders Petrie, on "Unwritten History." Nov. 27, Dr. Alan Gardiner, on "Egyptian Ethics" (to be published in our April number). Dec. 5, Reading of Drew Lecture on "The Egyptians' Belief in a Future Life." Dec. 11, Prof. P. E. Newberry, on "The North-western Delta, its People and their Cults." Jan. 23, Dr. Haddon, on "Study of Savages." Feb. 26, Miss Murray, on "Ancestor Cults." May Meeting, at University College, Prof. Flinders Petrie's lantern-lecture on New Discoveries.

BOURNEMOUTH. (Miss E. Allis-Smith, Martello Towers, Branksome Park.)—Dec. 8, 3.30 p.m., at Kelton Manor Road (Mrs. Fane), Mrs. Sefton-Jones, on "Prof. Flinders Petrie's recent Work," showing some of the objects found. Jan. 14, 3.30 p.m., at Shalimar, Wilderton Road, Branksome Park (Mrs. Claude Lyon), lantern-lecture by Claude Lyon, on "The Temple of Abu Simbel." Meetings, Feb. and Mar., IIIrd and IVth dynasties.

EDINBURGH. (Mrs. Melville, 16, Carlton Street.)—Oct. 28, 3 p.m., in Heriot Watt College, lantern-lecture, Mrs. Flinders Petrie, on "Recent Excavations of a 1st dynasty Site," followed by a demonstration in the Royal Scottish Museum. Other meetings not named.

FARNHAM. (Miss G. D. Buckle, Brackenhurst, Farnham.)—Oct. 31, Miss G. Buckle, on "Temple Ritual." Dec. 4, Mrs. Milne, on "Funerary Rites." Jan., Brigadier-General Mitford, C.B., D.S.O., on "Berber."

GLASGOW. (Miss Bruce Murray, 17, University Gardens.)—Oct. 29, 8.30 p.m., in University, lantern-lecture by Mrs. Flinders Petrie, on "Recent Excavations of a 1st dynasty Site." Nov. 25, 4 p.m., in Park Parish Church Hall, Rev. A. C. Baird, B.D., on "Relations of Egypt to neighbouring States, XIXth dynasty onwards." Jan. 14, 3 p.m., Prof. Stevenson, D.Litt., on "A Storyteller of Fifth Century B.C." Feb. 17, 4 p.m., Dr. J. D. Falconer, on "Traces of Early Egyptian Culture in Western Sudan." Mar., Evening meeting.

HASTINGS. (Mrs. Russell Morris, Quarry Hill Lodge, St. Leonards.)—Oct., Paper on "The Hittites." Nov., Rev. J. D. Gray, on "Neolithic Age." Dec. 1, Mrs. Purdon, on "Ancient Egyptian Magic." Jan., Dr. Yanton, on "The Egyptian Lotus." Feb., Lecture by J. S. Parkin. Mar., Paper on the Cretans.

REIGATE. (Mrs. Paul, Hilton Lodge.)—Oct. 17, "Readings from the Book of the Dead." Nov. 13, "Mythology and Religion of primitive people and Ideal of God." Dec. 4, "The Abode of the Blessed, and Doctrine of Eternal Life." Jan., Feb., and Mar., Lectures by Miss L. Eckenstein, on "Mummies," "Amulets," "Dress, Religious and Secular."

ROSS-ON-WYE. (Mrs. Marshall, Gayton Hall.)—Oct. 30, Miss Harvey, on "Ancient Civilisation of Crete." Nov. 26, First Paper of the Historical course, 1st, IIrd, and IIIrd dynasties. Dec. 31, Historical course continued.

TINTAGEL. (Mrs. Harris, St. Piran's.)—Oct. 6, "Prehistoric Egypt and the First Three Dynasties." Nov. 3, on "Recent Discoveries." Dec. 1, "On Flints, Jewellery, etc." Mar. or April, Prehistoric.

In addition to the E.R.S.A., there is a Local Society for Manchester, entitled the Manchester Egyptian and Oriental Society, which has always worked in collaboration with us.

MANCHESTER. (Miss W. M. Crompton, The University.)—Oct. 6, 4.30 p.m., Prof. Flinders Petrie, on "Early Cylinders and Scarabs." Oct. 27, 8 p.m., Prof. Elliot Smith, on "The Foreign Influence of Egypt during the Old Kingdom." Nov. 14, Dr. Louis Gray, on "Zoroastrianism and other Material in *Acta Sanctorum*." Dec. 8, 5 p.m., Rev. J. A. Meeson, on "Wisdom Literature." Dec. 15, 8 p.m., Dr. Alan Gardiner, on "Egyptian Hieroglyphic Writing." Lectures for 1914, by Mr. W. Burton, on "Egyptian Glazed Ware"; by H. R. Hall, on "Greek Monasteries"; Prof. A. Dickie, on "The Origin and Development of Building amongst the Jews"; Prof. Lehmann-Haupt, on "Tigranokerta Rediscovered"; and A. M. Blackman, on "The Painted Tombs at Meir."

HILDA FLINDERS PETRIE.

THE PORTRAITS.

1. This head is certainly a portrait of AMENEMHAT III. It is of the same peculiar physiognomy and expression as the large, seated figure in the Cairo Museum, which was found on the site of the Labyrinth at Hawara. That figure, in fine condition, and bearing the full names of the king, served to fix for us his portraiture. Here we see the same curiously flat cheeks, the slight nose, and the thin compressed mouth, which are so characteristic of this king, and so different from any other head that we know. In the flat face and narrow lips perhaps, of all kings, Henry VII is the nearest parallel. There is none of the full vitality and obvious strength which are so plainly seen in Senusert I, or Senusert III. It is difficult to imagine such a man, with an almost pathological look of ill-health, raising the Labyrinth, the greatest temple of Egypt, which lasted as a world-wonder for three thousand years; or designing that immense burial chamber hollowed out of a single block of flinty rock, 26 feet long and 12 feet wide, which encompassed him in the pyramid of Hawara after a reign of forty-four years. This head is carved in a mottled diorite of fine grain. It was purchased by Miss Amelia Edwards, and bequeathed by her to University College, where it now is.

2. This bust of the XVIIIth dynasty is one of the most charming pieces of sculpture of the great period of Thebes. It has originally been part of a group

of two figures seated side by side, as husband and wife were usually represented at that time. One day I had the pleasure of showing it to my friend, the late Sir Francis Galton; he gazed for some time, and then with a sigh, said: "Ah! to think she should ever have died!" For the sweet and gracious dignity of this face there is scarcely an equal after the Pyramid Age.

Some traces of inscription remain on the back, beginning with a *Nesut dy hetep* to Haraâkhuti, and apparently naming Hor-nez-atef, son of the messenger (*khâs*) whose name is lost. No such name is found in Lieblein, Legrain, or Weigall's guide to the Theban tombs.

This bust is carved in the very hard limestone which was



30. Lady of XVIIIth dynasty. Limestone. Birmingham.

usual in the reign of Amenhotep III. I owe the cast, and the photograph on this page, to the kindness of Sir Whitworth Wallis; he was informed by a friend, who was moving house, that he could have "two old stones that are in the stable." This was one of them, and it is now an ornament of the Art Gallery at Birmingham.

W. M. F. P.



1. KING AMENEMHAT III. UNIVERSITY COLLEGE.



2. LADY OF XVIIITH DYNASTY. BIRMINGHAM.



HARVEST SCENES, TOMB OF MENNA.

(See p. 96.)

ANCIENT EGYPT.

THE BRITISH SCHOOL AT LAHUN.

THE work of the British School of Archaeology in Egypt, under the direct supervision of Prof. Petrie, round the Pyramid of Senusert II at Il Lahun (Fayum) began on 6th January. The principal object in view is the complete clearance of the pyramid enclosure, in order to plan the various constructions, and to discover, if possible, an entrance into the burial chambers of the royal family. On the analogy of other XIIth dynasty pyramids, the entry to these tombs should exist somewhere beneath the space enclosed by the temenos wall. Originally a rocky



slope existed here, with its highest part to the north. The whole site has been levelled by cutting down into the solid rock, and by building up with chips to some extent on the south. All round the rocky knoll which formed the core of the pyramid, there are now high mounds of chips; while on the north the whole cutting has been filled up again with sand and débris. Fortunately plenty of labour is available, and at present some 220 men and boys are at work. Of these, 23 are

Prof. Petrie's old hands from Quft, who know well the meaning of every variation in the ground in which they are digging, while the remainder are villagers from two or three miles away, who tramp to the work, with their hoes, and their boys, and their baskets ; they toil from soon after sunrise to ten minutes before sunset, with an hour's rest at noon, and then trudge home again. They are mostly poor folk, and are glad of the chance of earning a good wage. They are quite unskilled, but soon improve under the eyes of the trained Quftis, who are each one in charge of three "locals."

The first photograph gives a good idea of the method, extent, and difficulty of the work. The view is looking east, along the rock cutting which bounds the enclosure on the north. The men hoe up the ground, fill the baskets, and lift them on to the shoulders of the boys, who empty them some distance away. When the pit gets very deep, a chain has to be formed, with a succession of lifts. The rock which in the north-west corner is levelled down to some 20 feet has been faced with a thick brick wall covered with white plaster.

About 15 feet south of this wall, stands a row of eight masses of solid rock, one of which can be seen on the right in the photograph. They are about 30 feet by 45 feet, and the highest about 15 feet, apparently in the form of mastabas ; no doubt they cover the burial chambers of the royal family. The whole corridor between the vertical face on the north and the mastabas is now clear from east to west down to its rock pavement, and to walk along from end to end in its cool and shady depth is a striking experience. Robbers in the past have been active here. They have pulled down or made large holes in the brick-work, and have even tunnelled right through one of the rock masses, in their apparently fruitless search.



A small pyramid, 90 feet square, no doubt of the Queen, stands at the north-east corner of the enclosure. The whole of the surrounding pavement is now cleared, but beyond a few coloured chips of sculpture from the chapel, and foundation deposits of minor interest, nothing has been found. The fine white limestone which once covered the rough core of the pyramid, and which paved the enclosure, has almost completely disappeared. The second photograph shows the work on the north-

east corner here, looking south, with the eastern side of the large pyramid enclosure in the distance. This is better seen in the third photograph. The whole of the foundations of the enclosure walls have been laid bare, and this clearance is further continued up to the original foundation of the pyramid. Very curiously, the rock



floor has been cut so as to slope gently inward for 40 feet, after which it rises up again towards the pyramid. It was then covered over and levelled up with clean sand, and a layer of flint pebbles on the top. This trench full of sand seems to have been intended to receive and absorb any rain that ran off the pyramid, so as to prevent the water soaking into the foundations. The temple area was buried 15 to 18 feet deep in chips, but it has been completely cleared, and the rock surface everywhere examined minutely for any traces of hidden entrances. The third photograph will give a good idea how this was done, every crack in the rock being examined, and brushed clean.

Outside the temenos wall was found a line of deep circular pits filled with mud. These have been traced right round the east, south, and part of the west sides. Some of them contained roots and branches, and their purpose is obvious. A row of trees surrounding a pyramid is quite unknown elsewhere, and we can easily imagine what a pleasing effect they must have produced,—the shining, white pyramid, the green line of trees, and then the yellow desert.

Mr. Engelbach's work four miles away at Harageh has been very successful, in a cemetery which is mainly of the XIIth dynasty.

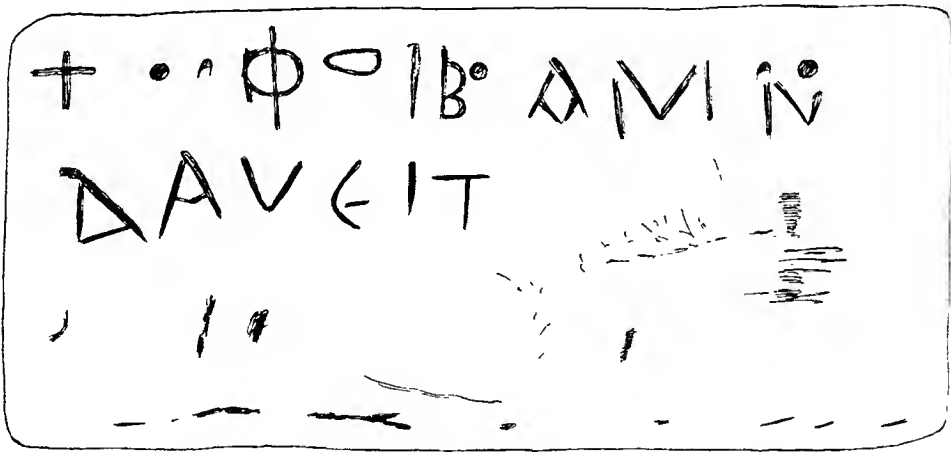
[illegible]

A BYZANTINE TABLE OF FRACTIONS.

THIS outer leaf of a set of writing tablets, has two lists of fractions written in ink upon the recessed surface of the wood. These lists show the method of compiling multiples of $\frac{1}{15}$ th and $\frac{1}{16}$ th, which will be best followed in the transcription and translation facing the facsimile. The system was to add together a series of fractions, each with one as numerator, so as to make up more complex fractions. Thus here the 15th part of 7 is stated to be $\frac{1}{3} + \frac{1}{16} + \frac{1}{36}$. We can verify this in our way by saying that $\frac{1}{30} + \frac{1}{30} + \frac{1}{30} = \frac{1}{10}$ or $\frac{1}{15}$. This is the regular system of ancient Egypt, and it is interesting to see how it was continued on into Christian times, while it is still familiar to the modern Copt.

The reading of the columns begins with "15" and "16," showing that this is part of a series of tablets giving the composition of various fractions up to $\frac{1}{16}$ ths, which is the last. The heading continues: "The 15th part of one is $\frac{1}{15}$ th, the 15th part of 2 is $\frac{1}{10} + \frac{1}{30}$," and so on to the foot of the tablet, after which two more entries are put up at the top of the middle part. The further column is parted from the first by the *chi rho* monogram. It reads: "16. The 16th part (O E unexplained) of one . . ." doubtless $\frac{1}{16}$ th is lost; "of 2 = $\frac{1}{8}$ th; of 3 = $\frac{1}{8}$ th + $\frac{1}{16}$ th," etc.

A list of the signs used for the fractions is added to the transcription here for convenience.



OUTSIDE OF TABLE OF FRACTIONS, "PHOIBAMN DAUEIT."

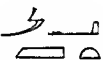
On the back of this tablet, which was the outer one of the group, is very roughly cut "Phoibamn Daueit," probably the name and paternity of the schoolboy who used it. The size is 10·6 inches long and 5 inches wide, with three holes through it to tie the leaves together; there are two smaller holes running out in the edge, for securing a string round the tablets in order to seal them. It was bought in Egypt, 1913, and is now in University College, London.

HERBERT THOMPSON.

NOTES ON THE ETHICS OF THE EGYPTIANS.

IN our study of the civilisation of the ancient Egyptians, it is interesting to consider an aspect which is too often neglected. We are apt to concentrate our attention on the material side, to study their great monuments and the concrete details of their life as depicted in the tombs, and one forgets to ask what were these people like, as men? What were their ideals, their estimates of right and wrong? If we are liable to overlook this, in our study of archaeology or of philology, it is not the fault of the Egyptians themselves. In all their inscriptions, wherever there are monuments or writings to study, we find that they are lavish in the expression of their ethical ideas, though it is often only to make a boast of their own virtues or their own position. There is a large proportion of inscriptions which deal with what we vaguely call titles. Some of these refer to the rank and offices of the deceased, but they are interlarded with many expressions regarding the moral qualities which they claimed to possess. Almost every stele has—"I gave bread to the hungry, water to the thirsty, and clothes to the naked."

The first thing that we notice about these expressions is the extremely concrete way in which they express themselves. It is curious that so ethically-minded a people should have had no word for "ought." Although they were always boasting of their virtues, they did not possess this word, and when they required to convey the notion of duty, they put it more literally: "I did what men love, and what the gods approve." Approbation from without seems to have been a chief incentive to virtue.

The stock of words conveying abstract ideas was extremely limited, and the words were very simple. The word for "right" is *ma'et* (*māot*)  meaning right direction, and derived from a verb "to be straight," "to lead straight on." Thus *ma'et* signifies conformity to an ethical norm, though it is often equally well translated as Truth or Justice. The word for iniquity is *'iesfet*; there are not many words for crime. "Duty" is generally conveyed by the phrase *'ere-t*, "that which appertains to a man," meaning the obligation which rests upon him. There is no word for "will." Conscience is sometimes represented by *'ieb* (*ab*) "heart," expressing not only the mere instrument of cognition, but also the faculty which recognises and suggests the right course of action. On an XVIIIth dynasty stele we read:—"Thus saith he. This is my character to which I have borne witness, "and there is no exaggeration therein . . . It is my heart (*'ieb*) that caused me to "do it through its guidance unto me. It was an excellent prompter unto me; "I did not infringe its commands; I feared to transgress its guidance. Therefore "I prospered exceedingly, and was fortunate on account of that which it caused me "to do; I succeeded by reason of its guidance. Of a sooth, true is that which is "said by men: 'It (the heart) is the voice of God that is in everybody; happy is "he whom it has led to a good course of action!" Beyond a few similar passages there is not much which refers to any ethical concept, and it seems as though the ethical thought of the Egyptians never attained any very high level.

The Egyptians were not philosophers, and they were unable to account in any philosophical manner for their rules of conduct. They seem to have possessed no

words for "motive," "responsibility," or "scruple." They apparently never wrestled over the difficulties of opposing lines of conduct; their minds were not torn by moral struggles. It was recognised that some things were intrinsically good, and others bad, but we never find anything but the crudest lines of division; it is never implied that such and such conduct may be good in one person or instance, and bad in another. In ancient Egypt, the philosophic level was not reached; it was only so in the regions of the Mediterranean area, from the time when Greek influences began to prevail.

It has been already noticed in how very concrete a manner the Egyptians expressed various moral predicates. Whenever they could do so, they visualised an action, and reduced the expression of it to its simplest terms. For instance, to express what we mean by "reserved" or "discreet," they formed a simple compound, *hāp rō*, "hidden of mouth," and to express "kindly" or "indulgent," they said *wah 'ieb*, "enduring of heart." Almost all their descriptive phrases were formed in this kind of way; the words consist, for the most part, of adjectives or participles, which describe a condition that can be visualised, and they figure a limb or part of the body in which the quality to be named exhibits itself. *'ieb* is used to denote conditions of mind and temperament, *rō* for anything manifested by the mouth, *hor* (*her*) for things of the face, as in *spad hor*, "sharp of face," meaning "intelligent," "clever," *'a*, arm, for action, as in *'aw 'a*, "extended of hand," meaning generous or liberal; and the use of these excessively concrete images to denote abstract qualities makes it extremely difficult to translate Egyptian texts with any certainty of accuracy.

The ancient Egyptians appear to have had a strong belief in fate, and they imagined that fate, *shay*, governed all the events of life. They did not, however, hold the belief that men's actions were determined beforehand. Men were hampered by predestined occurrences but were free in their own individual actions, and free from the tyranny of *Kismet* which paralyses the Egyptians of to-day. The Egyptian moralists never reached the loftiest planes of ethics. It does not appear that they realised that virtue is its own reward, but all their teaching was on a lower plane. In the maxims of Ptah-hetep, belonging to the Old Kingdom period, we read:—"Excellent is right, and endureth and prevaieth," but prudential considerations follow—"Never has wickedness brought its venture safe to port; wrong-doing stealeth away riches." It seems as though virtue was not inculcated for its own sake, but recommended for practice merely with a view to the reward that it might bring.

Perhaps the highest standpoint, in this regard, to which the Egyptians attained, was in the desire to raise up a good name, but with this there was naïvely blended the intense desire for approval, and the over-anxiety to stand well with others. He required to be in favour with the Pharaoh, and to describe himself as "beloved of his master," or as one "with whose excellence the lord of the two lands was content," but it is interesting to note that the popular verdict was also held in high account. Pharaoh was considered to be the patron and the recompenser of virtue—"the Lord of Right," and an official relates—"I did right for the Lord of Right for I knew he is pleased at it"; yet in spite of the absolute form of the government under the Pharaohs, the approval of fellow-men, and public opinion in general was held in esteem.

Virtue was considered to reap its reward on earth. A man ends a long catalogue of his own good qualities with an address to mankind: "I speak to you, 'O mortals; listen and do the good deeds that I have done, and to you shall be

"done the like." To a king, it is said: "Do the right that thou mayest live long in the land." Sometimes this idea is expressed more theologically: "God returns evil to him who does it, and right to him who brings it." The fear of God is also found to be an incentive to good conduct.

The Egyptians were of course aware that it is not always the worthy who reap rewards, they noted the fact that the unworthy sometimes prosper through no merit of their own, but they regarded this as accidental. The predominance of wrong became the theme of a class of pessimistic writings, which deal with the evil conditions prevailing in certain periods. A papyrus preserved at Leyden describes the deadlock of social conditions—how "slaves have usurped the place of the rich, murder and rapine prevail, and the righteous dwell alone and in misery." One author draws the conclusion that life is not worth living, another cites as the cause, the impiety of mankind and the callousness of their ruler. The crowning passage in this literature consists in admonitions to the Pharaoh to perform various religious duties incumbent upon kings, in the hope of their leading to happier conditions in the state of the country.

With regard to the life after death, there was a gradual growth of belief that virtue would reap its reward in that life to come. In the early time (Old Kingdom), more primitive beliefs in certain rites and formulae held ground; in the literature of the Pyramid times, it is the magical element which is to the fore; indeed the whole trend of the Pyramid Texts is towards the profession of certain actions and the reading of certain formulae, and even the fact of their being written on the tomb had efficacy in the gaining of happiness hereafter. It must be admitted, however, that certain passages in the Pyramid Texts imply that righteousness would have its influence in determining the future life of man, and that the magic formulae were not the sole passport.

It is difficult to see how the change to the later and more ethical view takes its rise, and the gradual transition comes about, but it is to be found in the professions of virtues which are engraved on the funeral steles. The deceased begs an offering at his tomb, because of his good actions: "I have been virtuous, I have given bread to the hungry," etc., and this commemoration of virtues was one of the contributory causes which led up to the doctrine that virtue in this life would bring happiness in the life hereafter.

Then again, on these same steles of the Old Kingdom, it is often found that the deceased uses the name of one of the gods to threaten the evil-doer who dares to violate the tomb. The mention of judgment "in the place where judgment is given," suggests to us the conception of a deity who is the champion of the virtuous dead. Breasted shows that Rē, the Sun-god, held this position at a very early period, and then that solar beliefs were early overlaid by the Osirian beliefs, and in the later times this cult was pre-eminent and Osiris regarded as the rewarder of virtue and punisher of guilt.

One of the most famous chapters of the Book of the Dead (Chapter CXXV) contains the Negative Confession. The illustration which usually accompanies this is a vignette (see p. 27) representing Osiris seated on a dais, with the scales before him. The ibis-headed Thoth stands near, to record, and the heart of the deceased is weighed in the balance against the feather of truth (Māot). The forty-two assessors, seated above, are separately invoked in the repudiation of sins. In the two versions that have come down to us, we find denials that various forms of wrong have been committed, and we find the mention of demons as among those who punish such sins. After a preliminary invocation, the elder confession

begins:—"I have done no wickedness to men. I have not brought misery upon my fellows. I have not wrought injuries in the place of right. I have not done mischief. I have not made the beginning of every day laborious in the sight of him who worked for me I have not impoverished the poor I have not caused hunger. I have not caused weeping. I have not slain. I have not commanded to slay. I have not made everyone suffer. I have not decreased the meals in the temples. I have not diminished the loaves of the gods I have not added to, or taken from, the corn-measure. I have not diminished the palm (unit of measurement). I have not falsified the cubit of the fields. I have not added to the weights of the scales. I have not tampered with the plummet of the balance. I have not taken away the milk from the mouth of the child I have not snared the birds (bones of the gods) [*sic.*; quite obscure] I have not dammed running water I have not neglected the feast-days, in respect of their sacrificial joints I have not hindered the god in his goings forth" (processions). "I am pure! I am pure! I am pure! I am pure!" The later confession, added to it, has much the same tone, each denial being joined to the name of a demon:—"O fire-embracer, I have not robbed," etc.

Now, with regard to the Negative Confession, its importance has been much exaggerated. It is not a canonical list of vices or acts of wickedness; the many variants of the MSS. are enough to prove that no great stress was laid on precise cataloguing of the denials, but that they were rather chosen at random, and the list, if fairly complete, was carelessly compiled. The deceased was finally supposed to be innocent of all crime, and therefore worthy of acquittal in the presence of Osiris. Magic, in the long run, encroached upon the higher and more ethical view of things, for no doubt the chapter was employed as magical, and its words had a magical potency, when written out and deposited with the deceased. They were used as a means of conveying to him the assurance of happiness in the life hereafter.

It would take long to discuss in detail the whole catalogue of moral qualities, but, in conclusion, a short summary of the Egyptian character, from the sources at our disposal, may not be out of place.

The ancient Egyptians were a gay and light-hearted people, luxurious in their lives, and prone to self-indulgence. They were kind, however, charitable, and courteous in their behaviour, and there are no evidences of barbarous savagery and cruelties, such as were practised by the Babylonians and Assyrians. Honesty and incorruptibility were not among the strong points of the Egyptians, but in this respect they were at least able to perceive the ideal standard, if they did not attain to it. Intellectually they were gifted, though not deep, and they were averse to dull brooding; but their love of all that is artistic and pleasurable in life, is perhaps the characteristic which has played the largest part in helping to endear them to their modern votaries.

[These notes were made on an address given by Dr. ALAN H. GARDINER on 27 November, at the London centre, E.R.S.A.—HILDA FLINDERS PETRIE.]

THE LATE PROFESSOR TSUBOI AND EGYPTOLOGY IN JAPAN.

It was some thirty or forty years ago that archaeology began to be studied in Japan as a science. It is quite natural that Egyptology, which has no direct relation to the civilisation of Japan, has not been so much valued there as in Europe, and that its study has been restricted within a narrow circle of people. No doubt the study of the ancient history of Egypt has done a good deal for the popularisation of Egyptian antiquities among the Japanese. The late Prof. S. Tsuboi of the Tokyo Imperial University was the first to study Egyptology proper.

Prof. Tsuboi specialised in anthropology, while at the same time he had a deep interest in archaeology. After studying in England, France, and other continental countries, he lectured on anthropology as well as on archaeology in the Imperial University of Tokyo. Egyptology, however, seems to have been one of his favourite subjects. He frequently gave lectures on Egyptology in the High Normal School and at various public meetings.

Thus, through him, many strange antiquities, gathered from all parts of the Nile Valley, became gradually known to the learned circle of the Japanese, and the terms, for instance, *mastaba*, *canopic-jar* or *ushabti* have become quite familiar among them. When he first came to Europe, he had hardly enough time to devote himself to the study of Egyptian antiquities; but two years before his death, when travelling in Europe, he went to Cairo and studied the museum very carefully, and brought back to Japan some perfect models of funeral boats and other relics of the ancient Egyptians.

Learned society in Japan expected from him a satisfactory result of his study on Egyptology, but in 1913, while attending the International Congress of Royal Academies in Moscow, he suddenly died without having had time to publish the result of his studies. His untimely death was a great shock and a severe loss to Japan.

The Kyoto Imperial University, though much younger than the Tokyo University, has been closely connected with Egyptology from the time of its foundation. It has a special building for archaeological collections, joined the Egypt Exploration Fund, and has now joined the British School of Archaeology in Egypt. Since its foundation, the University has been collecting numerous antiquities from Egypt, and now we can see there stone implements and pottery of the Pre-dynastic age and various objects of the Dynastic periods. Of all these collections, those found at Deir el-Bahri occupy the greater part. This collection may be said to be the largest one in Japan, though certainly small as compared with many of those in Europe. In this University, lectures on Egyptology have been given by K. Hamada, one of the late Prof. Tsuboi's pupils.

Besides the collections in the Kyoto University, there is also a good collection of Egyptian antiquities in the Tokyo University, gathered by the late Prof. Tsuboi. This collection contains stone implements of the Pre-dynastic age, fragments of sculpture, mummies and funeral boats. In the College of Medicine there is a perfect mummy, and in the College of Literature some collection of antiquities.

Mr. Murakawa, Professor of the Ancient History of Europe, is also a student of Egyptology and often refers to it in his lectures.

Outside these two Imperial Universities, there is a good number of Egyptian antiquities in the Tokyo Imperial Household Museum, where mummies, ushabtiu, and other objects presented by the Cairo Museum, attract the eyes of visitors as do those in the British Museum. The fragments of the Greek vases found at Naukratis may be seen in this Museum and Kyoto University as well.

Now-a-days the general interest in Egyptian antiquities is increasing among private persons in Japan. This is not at all surprising when we think of the same tendency even in China. The late Tang-Fun, once the governor of the province Chi-li, was a great collector of old Chinese things and also of some ancient Egyptian things.

On the whole, in Japan, there is hardly any specialist in Egyptology as yet, and the study of this subject is still in its infancy. But there are certainly more students of Egyptology than of Assyriology.

The study of Egyptology, besides its own importance, has still more interesting relation with the study of the ancient graves and funeral customs in China. It is a most striking phenomenon to notice the similarities and coincidences between Egyptian funeral customs and those of China in the Han and Tang dynasties. The advanced methods of study in Egyptology will promote the studies of archaeology in Japan and other countries in the Far East.

K. HAMADA and T. CHIBA.



THE EARLIEST INSCRIPTIONS.

THE earliest known hieroglyphs and phrases are those on the primitive cylinders of stone, which are rarely found, and only in a few localities. Strange to say they have not yet been studied in any way, and are scarcely recognised as forming a distinct class of material on the early language and civilisation. Perhaps the main cause of this neglect is the rarity of them, coupled with the fact that from the purely linguistic point of view they are scarcely intelligible. It is not till a large number can be compared, and classes of them separated into definite types, that enough examples can be contrasted to see what is accidental and what is systematic in their arrangement.

In beginning the catalogue of the cylinders and scarabs at University College, I needed some classification of these early cylinders. Before a conclusive publication, it seems best to give a statement of the principal results reached, in order that some criticisms of them may be forthcoming before a final treatment. The copies here are only hand-drawn, sufficient for general study; but in the complete catalogue each cylinder will be published in photograph from a flat cast.

The greater part of the known examples are at University College; a large group was bought some quarter of a century ago by Rev. Greville Chester, probably from the looting of a single cemetery; from him they were acquired by Miss Edwards, and bequeathed with her collection to University College in 1892. I have bought a large number, all the examples that I could in Egypt. Thus there are now of—

University College, London	...	...	...	69
MacGregor Collection	...	...	...	26
Naga ed-Der, Reisner	...	...	...	17
All others	...	...	...	19
				<hr/>
				131

Of these the Rev. Wm. MacGregor most kindly lent me his examples, and I have made flat casts of them all, from which these drawings are taken. Those published by Dr. Reisner are in hand copies, with three photographs of each cylinder in the round. I have used the hand copies as skeletons, and drawn the signs in facsimile from the photographs. Hence there are only 19 which are not drawn directly for the present study, and some of those are facsimiles of my own, others are from Prof. Newberry's *Scarabs*. Our material therefore is nearly all safe enough to draw some conclusions. To save returning to this subject again, it may be added that the drawings used here from each source are as follows:—University College, Nos. 3, 4, 13–16, 18–20, 23, 25, 26, 28, 32–34, 36–38, 42, 44–50; MacGregor Collection, 1, 5, 6–9, 21, 22, 27, 40, 43, 54, 57–60, 69, 72; Naga ed-Der, 2, 12, 17, 29, 30, 31, 39, 61–64, 66; Various, 10, 11, 24, 35, 41, 53, 65, 71. Altogether 72 are here studied (three of them repeated), the remainder being partly figure subjects, partly with signs which cannot be identified.

After the photographs were all collected, I tried to gain what help I could by submitting them to one of the greatest authorities on the early language. Such as were similar to the Royal Tombs sealings, were commented on, but the greater

part were passed over as pre-historic, and therefore insoluble. It was evident that from the standpoint of the language alone very little could be done. Some fresh handling of the whole subject was needed, to make a start and break ground. It required treating as an entirely unknown language to begin with, and resolving by comparison of formulae and study of the structure, before looking to the language for clues. After that the earliest forms of the language may be compared with the sentences thus separated, and some idea be gained of the general meaning. I am obliged to Miss Murray and Dr. Walker for some suggestions. Any attempt at present must be merely a beginning, in order to open up a more scientific study of the subject.

These cylinders are mostly older than the sealings found in the Royal Tombs of the Ist dynasty; and the 207 sealings which I drew from there are of very little help here, because those were sealings of royal domains, while these are mostly funerary or religious.

The only basis we have for the language of the cylinders is the far later body of the Pyramid Texts. According to the Egyptians' own chronology, the cylinders are about thirteen centuries before the Pyramid Texts, which are in turn only seven centuries before the XIIth dynasty. Even on the arbitrarily shortened chronology, the cylinders are as far removed from the Pyramid Texts as the latter are from the Middle Kingdom. Beside this long interval, we must remember that the changes in the writing and language would naturally be much greater while the growth and formation of a system was in progress, than they would be after a large body of texts had been standardised, and a great bureaucracy had arisen. It is therefore to be expected that the whole grammar, usages of writing, and words should differ far more from the Pyramid Texts, than those do from the system of the XIIth dynasty. As we find many orthographic usages are strange to us in the Pyramid Texts, so we must expect to find a much larger proportion of unexpected features in the cylinders. The use of a root in different parts of speech may have been very different in the earliest stages of writing, from what we find usual in the formalised language. The regular canons which are looked on by us as normal to the writing and language may have been widely divergent in the primitive and tentative stages, when each man used signs in his own fashion, and no system was yet generally developed. None of the later canons can be used as implicit guides; we need to verify them each by some clear instances of the primitive age, before we can use them decisively to settle a reading. Also we must remember how often a word lingers long in popular use before being consecrated to literature. The phrase "too-too" in modern English, has only just reached the most evanescent writing; yet Cromwell used it in a letter and a Parliamentary speech two hundred and fifty years before (speech, Jan. 22, 1655; letter of July 27, 1657). So in Egyptian there might be words and constructions used in the earliest stages, which did not become part of the literary system; but which, preserved in popular use, were at last brought into literature in later times. Hence the absence of a word in early literature is no proof that it might not be used before the literature formed its canons.

All of these considerations need to be pointed out, as the usual laws cannot be applied to such early attempts at writing. We cannot apply the rules of the game before they existed. Much greater uncertainty must of course accompany a greater latitude: and until there is enough material to define the system of the time, we cannot hope to treat the cylinder inscriptions except by a series of guesses, which often leave alternative solutions equally possible. The immense importance, however, of getting some view of the oldest stages of the writing and language,

makes it imperative to try to solve this material, and not to leave it neglected as at present.

In order to examine the material clearly, it is here divided into eight classes:—

1. Seated figures.
2. *Akkhu* birds.
3. Religious formulae.
4. *Theth* formulae.
5. *Tet* formulae.
6. Phrases.
7. Titles.
8. Early dynastic.

SEATED FIGURES, I-11.

These seated figures have in all examples (except No. 2) a table of offerings before each, and usually one or two loaves on the table. The figure (except in 2) has one hand lifted over the offerings to accept them. It always has very long hair, often hanging down below the seat. The seat is fully shown in some examples, such as No. 6. The type of couch used in dynasties 0 and 1 is well outlined; it has the poles with expanded ends, the cross bars, and the short legs. For scattered examples of such figures, entered in other classes, see Nos. 12, 33, 36, 37, 38, 39, 41, 42, 43, 44, 61, 63, 64. Thus a third of all intelligible cylinders have this figure and table of offerings. It seems impossible to dissociate this from the universal type of early stele, with the deceased seated, extending a hand over his table of offerings; for an early example see the stele of Heknen (*Medum*, xvi). It appears then that these must be the earlier equivalent of the sepulchral stele, that which was to ensure future felicity to the deceased. It does not seem likely that such a design would be used as a seal by the living person, and no clay impressions of such seals are known.

No. 1 has a different type of figure, with the second arm shown, no hair, and a table with upright loaves(?). The inscription seems to read *Ah ne Neit*, "Rejoice in Neit," which may be a personal name, or less probably a pious wish for the dead. Neit is written with the crossed arrows, but very roughly drawn. (See *Royal Tombs*, I, v.)

No. 2 is a gold foil cylinder, the only such known (Naga ed-Dêr). It is very simple, reading *Neit men s, men s Neit* "Neit establishes her, establish her O Neit." The donkey's head is probably a word sign for the personal name.

No. 3 begins with the sign of Neit, see the stele of Merneit (*Royal Tombs*, I, i) followed by *sen-sent*. This word often recurs, sometimes *sen* alone, sometimes duplicated as *sen-sen*. The root meaning is *sen* "brother." Yet as it is not likely that the dead would be called a brother of a god, we must look to a derived meaning. *Sen-sen* is used for "to be united" or "associated"; and, still further derived, *sen* sometimes is used for equality or conformity. We may perhaps best take *sen* as assimilated or conformed to a god, and *sensen* as united to the god in a stronger sense.

No. 4 introduces the pool sign *ba*, familiar in the 1st dynasty in the name of King Merpaba (*Royal Tombs*, I, vi, xxvi). As we shall see later, this occurs as the name of a deity (23). Here it is joined with *hã* "to be behind," to protect, or "back" a person. It may read "Behind is Ba, behind her." Ba may be the Ram-god Ba, who is "over the gods," or Ba lord of Daddu (Osiris), as a ram.

No. 5. The latter conclusion is the more likely, as the ram Ba represents

Osiris lord of Daddu on this cylinder, reading "conformed to Onz Ba," Onz being the name of Osiris at Heb (Behbet) in the Delta. This place is only 16 miles from Daddu (Tmei el-Amdid).

No. 6. Here a fresh form of devotion is given, by *khet* "to follow." It appears to read "Follower of Neit, follower of Hathor (?), Zeded." The animal seems to be different to the Ba, with wide-spread horns, and the twig *renp* between them; it may be a form of the Hathor cow, or rather a cow worship not yet identified with Hathor. The name Zeded, a cake, has the determinative of a turn-over cake following it; such a name is parallel to *tā*, bread loaf, which is a common name, alone or with additions.

No. 7 is like 4, an appeal to the protection of the god, "Neit is behind"; it may be a personal name. The golden-headed vulture *ā*, appears here to be the phonetic complement of *hā*.

No. 8 is a symmetrical arrangement of the title *hen*, priest, twice repeated, with the names of the goddesses Neit and Uazet. That the serpent alone, in this form, was used for the goddess Uazet is shown by the reading of the serpent of the tenth nome of Upper Egypt, discussed in the report of the *Recueil* in our previous number.

No. 9. The plant sign here is read *uas* by Dr. Sethe. The reading seems to be *Se uas s Uazet*, "Uazet causes her to flourish." After that there is no evident reading: possibly we might read *set* the body or being, flourishes because of Neit.


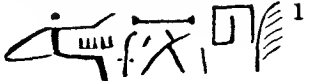




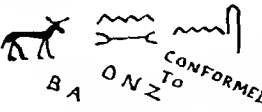


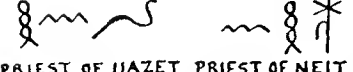
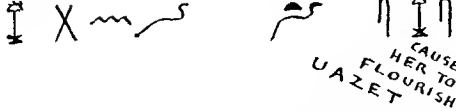

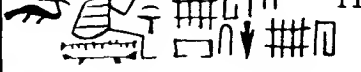




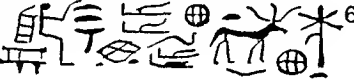

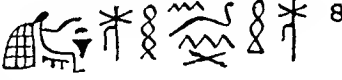


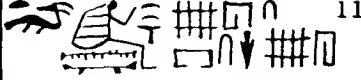
No. 10 reads "United to Uazet," but here *sent* is thrice repeated. Probably there are instances of senseless repetition to fill up a space on cylinders, and this may be such; or even a repetition may be intentional to re-enforce the sense, in a manner which was disused as writing became formalised.

No. 11 does not yield any evident reading. Both 10 and 11 are notable for introducing a bird behind the seated figure; this bird can hardly be dissociated from the next group.

It will be seen how funereal cylinders of this class never contain any titles, but solely declarations of unity or conformity with the gods, or else prayers for protection. This agrees well with the purport suggested by the resemblance to the stele, of benefit and safety in the future life. Only one office is named, and that is a priesthood, which ensured divine protection.

AĀKHU BIRDS.

The next class of cylinders has a bird in each inscription. From always having two legs, this figure must be intended for a bird, although the head may seem more like a quadruped with horns. In three instances we find this bird on the same cylinder as a seated figure, Nos. 10, 11, 12. In two it succeeds the figure, in one it precedes it. It appears to be thus in the same relation to the rest of the inscription as the seated figure. It is parallel to the position in which the *āākhu* bird is seen, along with personal names, on the steles of the Ist dynasty. On those steles there are nineteen instances where the bird has the *ka* arms over it in protection, all belonging to the latter half of the Ist dynasty (*Royal Tombs*, I, xxxi, xxxxii; II, xxvii). The only earlier example has the bird alone (*Royal Tombs*, I, xxvi, 70). This indicates that the bird alone is the earlier form, before being combined with the *ka* arms. On the steles there is no instance of the bird turning the head back, which is always the case on the cylinders. Thus it seems that the cylinders belong to a time when the usages that we see in the Ist dynasty were not yet settled. On the later steles the bird always precedes the

NAME	ANALYSIS	INSCRIPTION
		 ¹
	 NEIT HER ESTABLISH HER ESTABLISH NEIT HER  UNITED WITH NEIT  BEHIND HER BA IS BEHIND  BA ONZ TO CONFORMED  FOLLOWER HATHOR FOLLOWER NEIT  BEHIND IS NEIT  PRIEST OF UAZET, PRIEST OF NEIT  CAUSE HER TO FLOURISH UAZET  TO HER UNITED UAZET IS  UNITED TO HER UAZET IS	 ²  ³  ⁴  ⁵  ⁶  ⁷  ⁸  ⁹  ¹⁰  ¹¹

CYLINDERS, WITH SEATED FIGURES.

The earlier equivalent of the steles with seated figures usual in the historical period.

name, on the earlier it succeeds it. By the analogy of the seated figure it is probable that the bird was regarded as succeeding the name on the cylinders.

From the position, and the resemblances to the use of the *adkhu* bird on the early steles, it seems then reasonable to accept these figures are representing the dead by the *adkhu* as a glorified one, instead of by a seated figure. At the same

time the difference of attitude, and absence of the *ka* arms, point to these preceding the Ist dynasty. The seated figure and the *aākhu* type have both been found at Naga ed-Dêr, so the two types do not show an exclusive difference of locality. Nor does there seem any clear difference in style, enough to warrant our dating one type before the other; but there is a difference in subject, as the deities are used exclusively with one type or with the other. The occurrences of names with either type, throughout the whole of these copies, are as follows:—

With Seated Figure.				With <i>Aākhu</i> Bird.			
Neit	...	...	14	Sekhmet ..	...	...	3
Uazet	...	...	4	Mafdet	...	...	1
Ba	...	...	4	Anpu	...	...	1
Shu (?)	...	...	2	The <i>ka</i>	...	...	4
Hathor (?)	...	...	1				
Hen	...	...	1				

Though on three cylinders the two types are conjoined, yet curiously enough only one deity is named, and that is Uazet on No. 10 where the seated figure is predominant.

It seems proved, therefore, that these two types belong to two different races with entirely different deities. The seated figure has the Delta deities; the *aākhu* has the more southern deities, Anpu of the Oases, and Sekhmet of Memphis, Heracleopolis, and Nubia. In historic times the seated figure appears on the earliest steles of the northern capital, while the *aākhu* appears on the earliest steles of Abydos, thus keeping the same difference of region.

No. 12. This seems to contain only a proper name Ry, inverted in the first case, and then direct. The sign of the mouth is often represented with the teeth (see Nos. 16, 33, 58); here the mouth is seen sideways. The reading is corroborated by the same name occurring on another cylinder, No. 55. This is not likely to read *Shy*, as such a name is unknown, while *Ry* is a usual name.

No. 13. The *sekhem* sceptre can hardly mean anything but the goddess Sekhmet. It is followed by a group *th, th, t*, which we shall deal with in the fourth class where it is repeated as No. 34. The personal name appears to be Peka.

No. 14. Here the *theth* group occurs with the leopard-goddess Mafdet and with At, repeated as No. 40.

No. 15 has the *theth* group with the *ka*; see the repeat No. 32.

No. 16 has only the personal name Ka-re repeated, which is known later on, in the XIXth-XXth dynasties (LIEB., *Dict. Noms*, 642, 986).

No. 17 reads "Anpu causes her to endure," or to be established; the personal name appears to be Set.

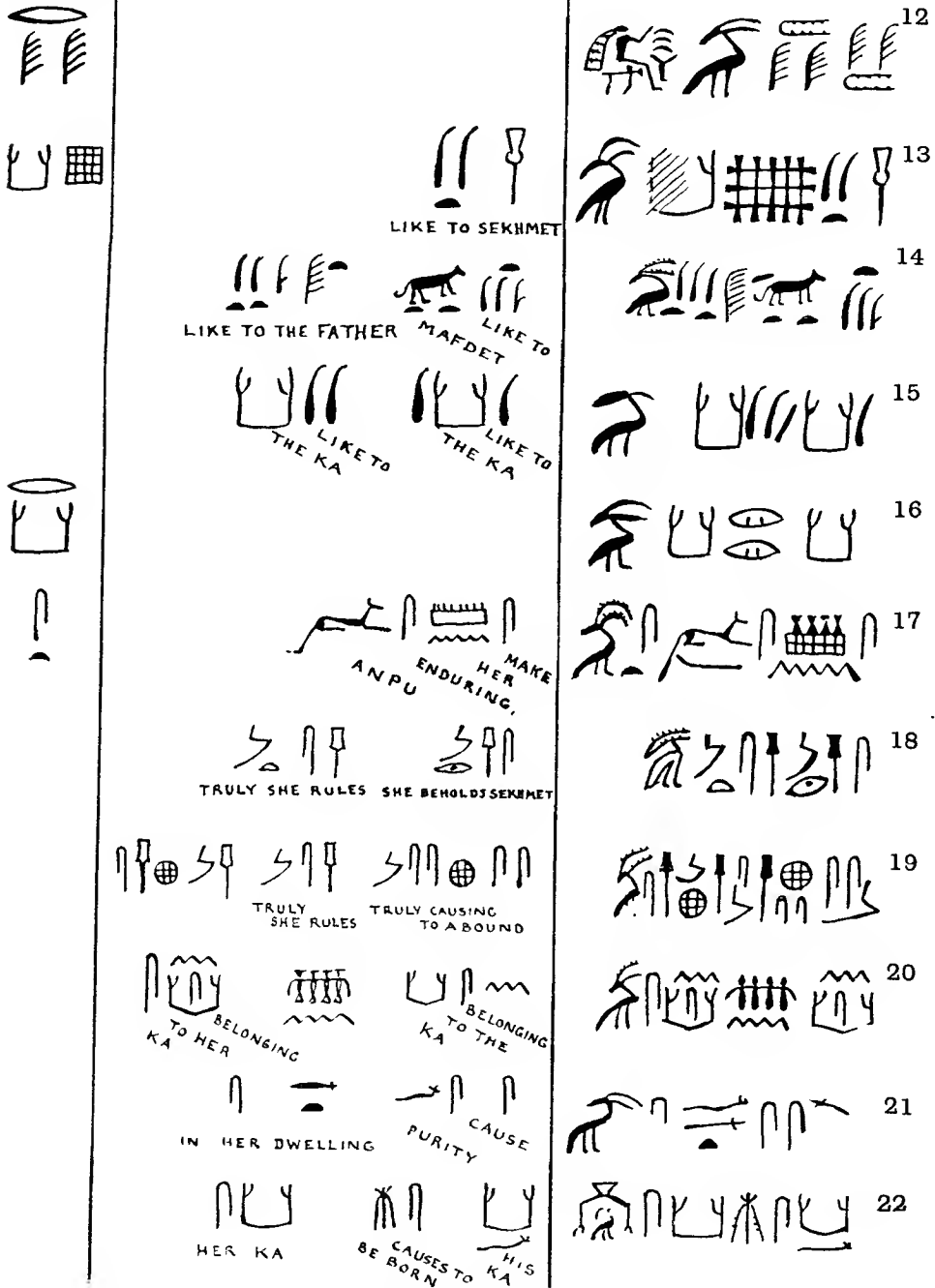
No. 18 seems to be a play upon words, which was a favourite usage in Egypt, *Sekhmet mǎǎ, sekhem mǎot*, "Beholding Sekhmet, truly she rules," or some such construction.

No. 19 is a complex arrangement, probably confused by mere repetitions. *Sekh* to abound, seems to be at the basis of it. Perhaps the phrases are: "Truly causing to abound, truly she rules," followed by repetitions of the signs.

No. 20 apparently brings in *nes*, to belong, "belonging to the *ka*" and "belonging to her *ka*," but the function of *khent-n* is not clear.

No. 21. The only suggestion on this is from the word *sef* to purify, used also in the causative *seseḥ*; possibly this may mean "make pure her dwelling."

No. 22 is a clear reading: "His *ka* causes to be born her *ka*." It is followed by the *ka* embracing the *aākhu*, this form of the *ka* occurring in the Ist dynasty (*Royal Tombs*, I, seal 86, II, seals 157).



CYLINDERS WITH THE AĀKHU BIRD.

The Bird emblem of the Soul is here used as a determinative as it is upon the earliest steles of the Ist dynasty.

RELIGIOUS FORMULAE.

This class extends also over most of those already noticed, but the two previous classes have been treated separately above in order to show the nature of the formulae which accompany the seated figure and the *aākhu*.

No. 23 has a clear reading: "Priestess of Ba lord of Her-mer-shet, priest of Ba, priest of Ba, priest of Neit." This place Hermershet is known in the time of Khafra (BRUGSCH, *Geog.*, 185), but spelt then with the hawk instead of the head, and the hoe *mer* for the chisel; the equivalence of these signs in early times is already known.

No. 24 has many repetitions on a large cylinder at Athens. It is another of the favourite plays upon words: *se-aun, se-un sen Neit*, "Cause union, cause existence, conformed to Neit."

No. 25 shews an interesting distinction between *n* as part of a word, and *n* alone as the preposition; the formal and the simplified shape are put in contrast, while the two are contrasted in the reverse manner in No. 29. It appears to read "Excellent god, cause existence for Nefer-ni-ankhti," a name perhaps meaning "The excellence of him who is alive"; it is apparently a proper name, divided by a bar from the rest of the inscription.

No. 26 differs from the others, being engraved on a bone cylinder with a cross pattern. It reads: "Thou art tended (or shepherded) and preserved for ever." The fuller grammatical form, the finished style of the signs, and the different character of the cylinder, point to a later date. Perhaps it belongs to the IIInd dynasty.

No. 27 shews a difficulty in the second and third signs; it seems strange to write *d* before *shed* if that is the value intended. Yet, as inversions are often found, it may be possible to render this "God save, God nourish thee." A second sense of *shed* seems suggested by the repetition with different spelling.



No. 28 presents no difficulty, and reads: "Adorer of Hathor, Mera." Though the name is partly broken it can hardly be read otherwise, and Mera, or Mery, is a common name in early times.

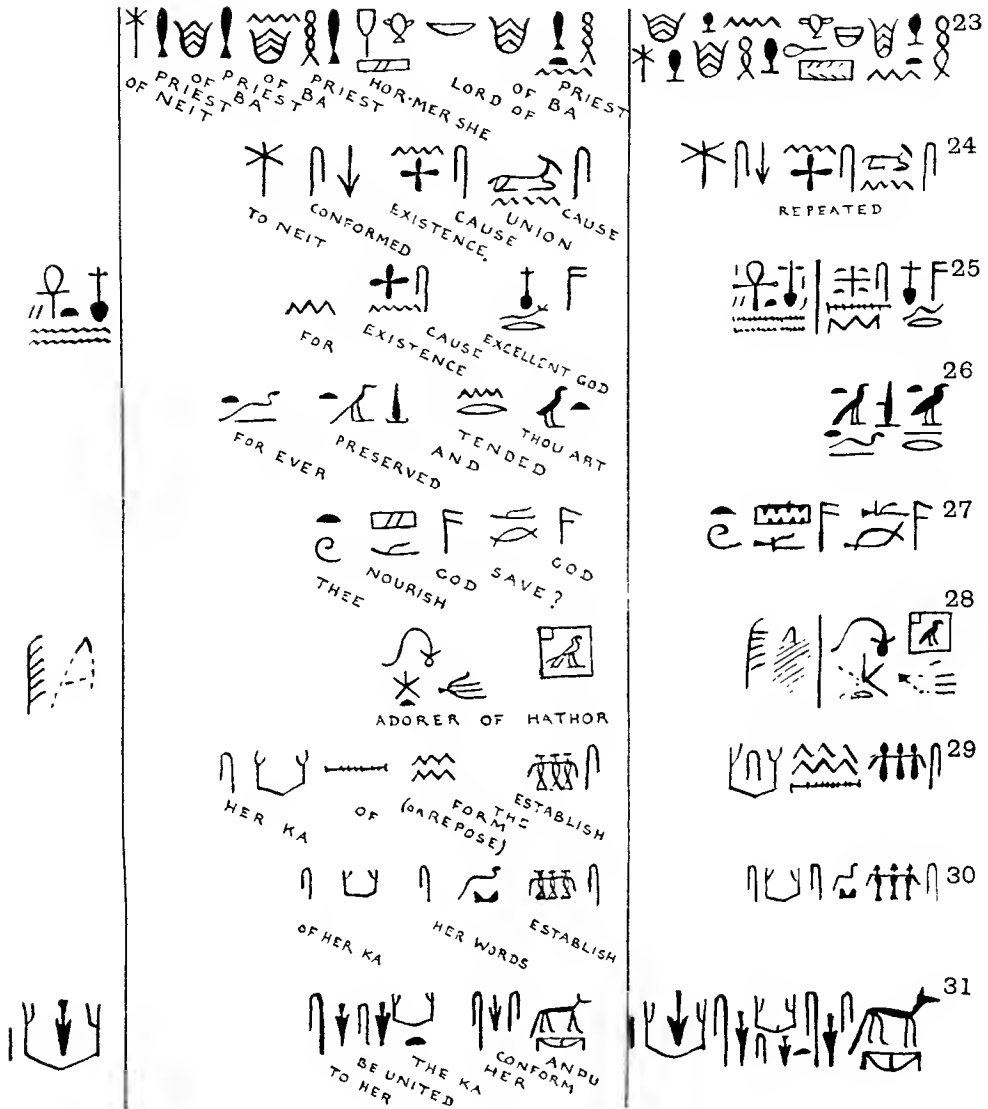
No. 29 appears to use *khent* in the sense of "establish." *Nen* would probably refer to the form or resemblance; but the sense of repose or inaction might be intended. The whole would read "Establish the form (or repose) of her *ka*."

No. 30 is similar in type. *Zedu* is an unusual way of writing "words" or "speech"; but who can say what spellings may have been current so early as this? "Establish her speech of her *ka*" seems a reasonable rendering.

No. 31 seems to be somewhat confused with repetitions. "Anpu conform her" is a possible reading; *Kat sen-sen s* seems to follow, possibly "the *ka* be united to her"; finally, there may be a proper name Senka, followed by a stroke.











THE THETH FORMULAE.

The frequent recurrence of  in connection with the names of gods is one of the main points which requires to be cleared up in this period. With this goes another class of cylinders which have  connected with the gods' names. On looking at the two classes 32-44 and 45-54, it is obvious that the *theth* class are all more archaic than the *tet* class. There is no distinction as to the gods named in each class, as there was between the gods of the seated figure and the *adkhu*. From the style of the *theth* group being only found in one instance (46) of the *tet* group, it seems clear that *tet* succeeded *theth* in point of time. As they are used in precisely the same way, and we know of *th* in Pyramid Texts becoming *t* later, probably *theth* and *tet* are all one word, in earlier and later forms. *Tet* is the form,



CYLINDERS WITH RELIGIOUS FORMULAE.

then, which we should look for in the known language. From the connections of the word it may probably be a term of prayer, of devotion, or of a priesthood. A suggestion has been made that *Theth* is used with male deities, *Thethet* with female. This, however, is not the case, as these forms are used in the same proportions with male and female deities.

At first the sense of “nourished,” from  , or , might seem likely; but the early form of that is stated to be  , though this is not quite conclusive, as  is so little used at this time that it only occurs twice on seventy cylinders (7, 26). Another possible root is   “image” or “likeness,” with the derived senses “to be like” or equal. Also   “a part” might be considered. When we see the frequency of *sen* and *sensen*, meaning conformity or union with

the gods, it is evident that such an expression as "like unto" a god would be nearly parallel, and not at all improbable. For the present, therefore, we may render *theth*, and its historical form of *tet*, as "like unto," without prejudice to some other rendering if a closer parallel can be found.

No. 32. Here the signs are separated by the first *ka*, and precede the second *ka*. "Like unto the *ka*" is not an improbable phrase when we recognise the *ka* as the ancestral guardian spirit.

No. 33 reads: "Like unto Neit" with the personal name Ner; compare *nera*, "a man."

No. 34 reads: "Like unto Sekhmet," with the name Peka.

No. 35 is "Like to Neit, like to Shu." The figure of Shu is one of the earliest of any god, occurring often on the IInd dynasty sealings, see in *Royal Tombs*, II, seal 178, with seal 200 proving the *u* bird to be intended, and the feather on the head in seal 199.

No. 36 reads: "Like unto the great Ba, like unto Neit." The form of throne with this figure is not known elsewhere.

No. 37 states the person to be like to Neit and Uazet; at the end of the formula is M which is in the place of a personal name. This suggests that the owl was at that time a syllabic, perhaps *ma* "come!"—a birth name.

No. 38. Here we see "Like to Neit, like to Hen"; the latter should be the name of a god in this position.

No. 39 names Neit and At; the latter is probably *at* "father," and being "like unto the father" would refer to assimilation to the ancestral *ka*. The personal name Nerher, should be compared to the name Ner in No. 33, as there it might be *ner* "man," so here Nerher might mean the "over man," or "man of Horus."

No. 40. Here the dead is stated to be "Like unto Mafdet, like unto At." For Mafdet see *Royal Tombs*, II, 50, pl. vii.

No. 41. This may be a matter of repetition, without varied meaning; but a continuous sense may be intended, somewhat thus:—"Causing love like unto Neit, she loves like Neit." The first figure must be that of the goddess seated, without the table of food offerings. After that comes the name Dy-Neit, "the gift of Neit," and the seated figure of the person with the usual table.

No. 42 reads: "Like unto the gods, causing pleasing by invocation" (*s-kher-nas*), and the same phrase repeated.

No. 43 reads: "Like unto Ba the generator (?), like unto Sekhmet."

No. 44 names a very unusual worship of Hait, "The Shiners," the sun and moon together. "Like under the Shiners, she is united to the Shiners."

THE TET FORMULAE.

This we have seen to be probably the later—or historical—form of the earlier *theth*, and perhaps best rendered by "like unto."

No. 45 names a series of deities—Hathor, Set, Neit, Horus, and Un "the Being," short for Un-nefer Osiris. To all these the person is stated to be assimilated,—like unto them.

No. 46 reads: "Like unto Shu, like unto Neit."

No. 47 reads: "Like unto Neit," with the personal name Neit-mest-onkh, "Neit bears alive."

We now reach a series of seven cylinders (48–54) with the same formulae, *tet en merut nekhebt*, which may perhaps be rendered "Like unto Nekhebt for love," or "Like to Nekhebt, loving," or "Assimilated by desire of Nekhebt."

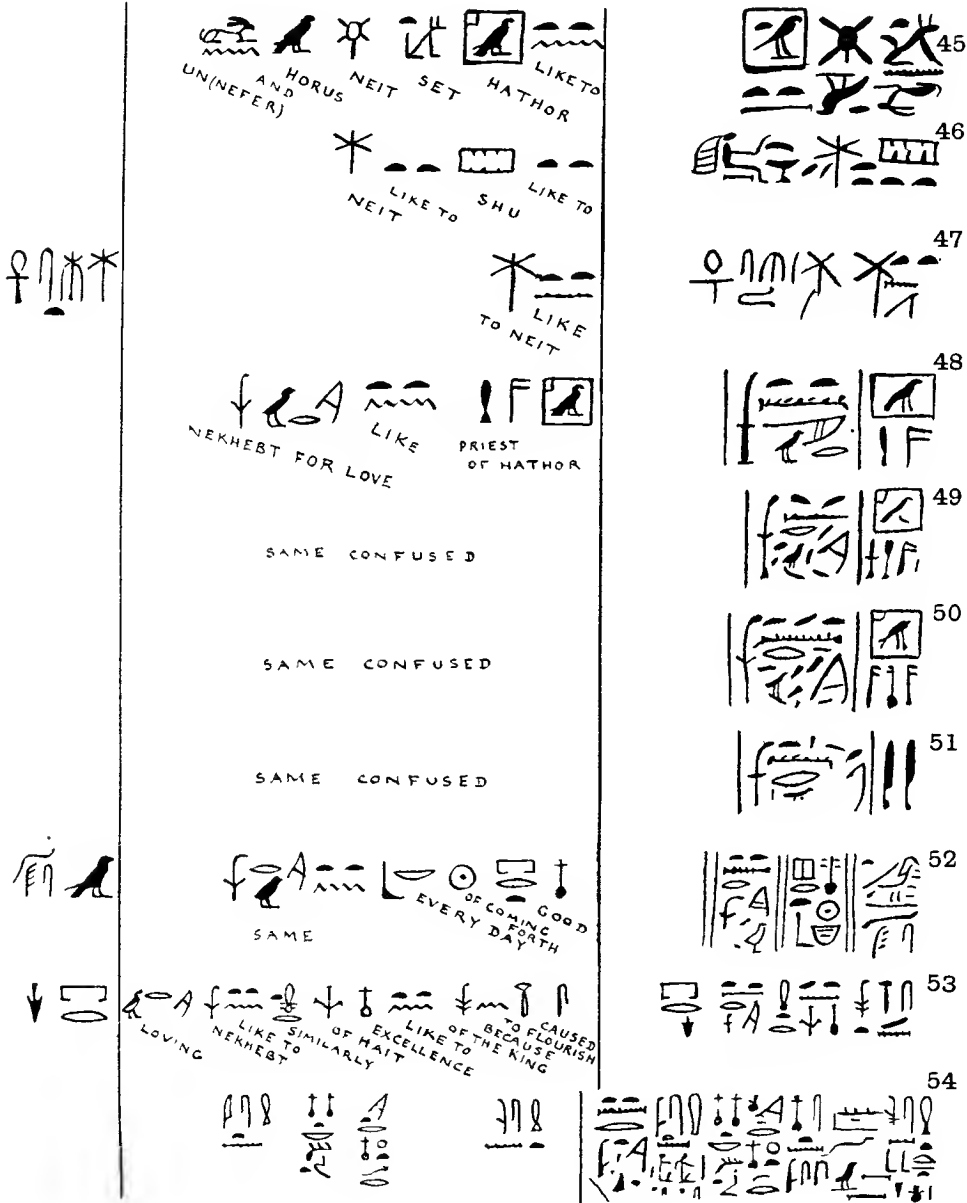
	<p>THE KA LIKE</p>	<p>THE KA LIKE</p>	32
	<p>LIKE UNTO NEIT</p>	<p>LIKE UNTO NEIT</p>	33
	<p>LIKE UNTO SEKHMET</p>	<p>LIKE UNTO SEKHMET</p>	34
	<p>LIKE TO SHU</p>	<p>TO LIKE NEIT</p>	35
	<p>TO LIKE NEIT BA THE GREAT</p>	<p>TO LIKE NEIT BA THE GREAT</p>	36
	<p>LIKE LIKE UAZET TO LIKE NEIT</p>	<p>LIKE LIKE UAZET TO LIKE NEIT</p>	37
	<p>LIKE UNTO HEN</p>	<p>LIKE UNTO NEIT</p>	38
	<p>LIKE UNTO HER FATHER AND NEIT</p>	<p>LIKE UNTO HER FATHER AND NEIT</p>	39
	<p>LIKE TO HER FATHER</p>	<p>MAFDET LIKE TO</p>	40
	<p>SHE LOVES LIKE N. LIKE TO N. CAUSING LOVE</p>	<p>SHE LOVES LIKE N. LIKE TO N. CAUSING LOVE</p>	41
	<p>BY INVOCATION PLEASING CAUSING TO THE GODS</p>	<p>BY INVOCATION PLEASING CAUSING TO THE GODS</p>	42
	<p>LIKE TO SEKHMET GENERATOR BA THE</p>	<p>LIKE TO SEKHMET GENERATOR BA THE</p>	43
	<p>TO HAIT UNITED HAIT LIKE UNTO</p>	<p>TO HAIT UNITED HAIT LIKE UNTO</p>	44

CYLINDERS WITH THE *THUTH* FORMULAE
Stating the likeness or similarity to the Gods.

Nos. 48, 49, 50 are all of priests of Hathor.



No. 51 has the personal name Aa or Y.

No. 52 may read: "Belonging to Horus, Nefer pert Ra neb (name, 'Good outgoing every day')." Perhaps the division should be different, and the reading "Excellence of coming forth every day, for the assimilated, by love of Nekhebt, Nesa-hor" (name). The phrase *pert ra neb* is equivalent to the *per em heru*, coming forth to-day in the future world.

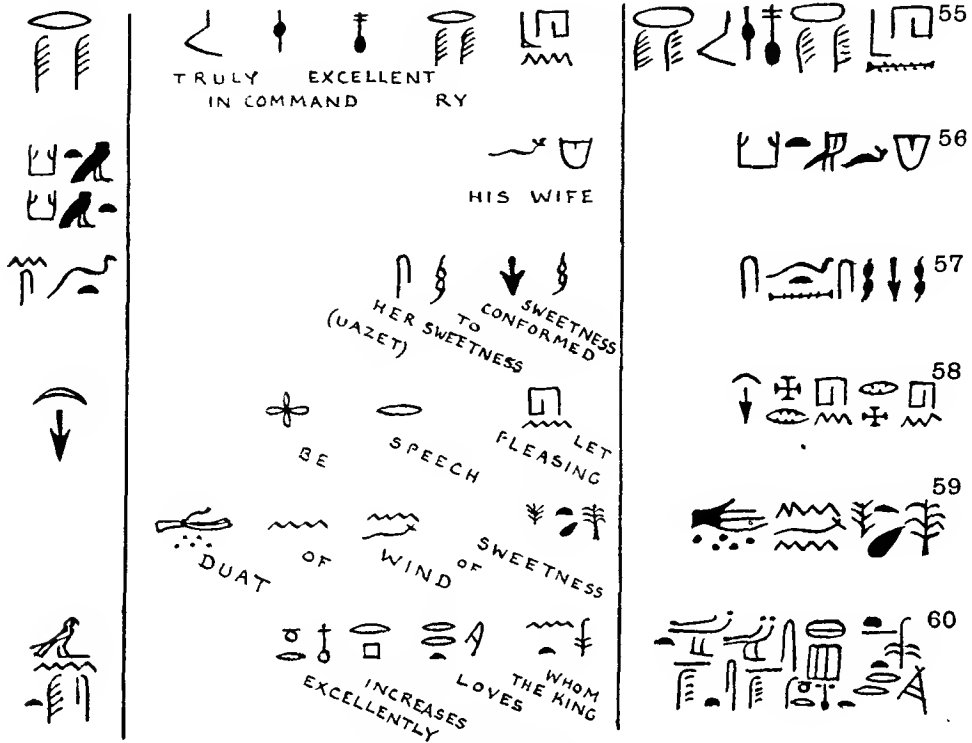


CYLINDERS WITH THE *TET* FORMULAE.

Later form of the *Theth* formulae.

No. 53 is a more complex example. It may read: "Made to flourish because of the king, like unto the excellence of the shiners (*nefer Hait*), similarly, like unto Nekhebt loving (or by love), Persen (name)." In early writing  is used for .

No. 54. This most complex cylinder may be separated into three groups, each beginning *hen sa ten*, or *se nefer ten*. The first group ends with *tet en merut nekhebt*, as above; the last group ends with a personal name, *mert khet nefer* Neferti, devoted to the Lord. Until the more simple inscriptions are cleared up, we cannot hope to deal with the whole of this.



CYLINDERS WITH PHRASES
Complimentary to the deceased person.

PHRASES.

No. 55 begins with a title *hbn* found on sealings from the Royal Tombs (*R.T.*, II, 307-8-13); next is the personal name *Ry* which we have had before in No. 12; then the phrase *nefer uz nūot*, "truly excellent in command" (Sethe); lastly, the name again, *Ry*.

No. 56 is very simple: "His wife, Temka," the name meaning "the perfection of the *ka*."

No. 57 reads: "Sweetness conformed to her sweetness" (that of *Uazet*), with the name *Nes-uazet*, "belonging to *Uazet*."

No. 58 is a duplicated reading. *Hen* is only known as "pleasing," in literature of the XIXth dynasty, but it may have been in popular use much earlier. If so, this may read: "Let pleasing speech be, Aoh-sen" (name).

No. 59 reads, apparently: *Benert* (with determinative of a date) *nef en Duat* "Sweetness of wind of *Duat*," a wish for the future life. The *Duat* is curiously written with the hand as the initial, and then five spots reading *dua*.

No. 60 reads, apparently: "He whom the king loves increases excellently, Hornesa" (name, repeated). The mouth sign is unusual in having the lips closed.

TITLES.

An interesting group was found by Dr. Reisner at Naga ed-Dêr, evidently connected together with the public business, Nos. 61 to 64. They all mention the *sentî*, plans, of the temple of Neit. As the plan sign is a looped cord, it is most likely that it was derived originally from land measures and surveys, rather than from house plans on a small scale, which would be laid out by a stick measure. No great buildings were erected at this period, as they were in later times when a cord was used at the founding of temples. The plans, therefore, at this early date, were probably of the priestly estates, the landed endowment; for this, our word *survey* is the better rendering. Another word connected is *as*, which appears in *per as*, the office or house of the *as*. This, in such a connection suggests *as* "to measure," or "make a plan," also connected with the derived senses of the Coptic *ason* "reckonings," or the earlier "recompense."

No. 61 might then perhaps read: "Temple of the *ka* of Neit, over the surveys and plans."

No. 62. "Over the temple of the *ka* of Neit, over the surveys of the temple of the *ka*."

No. 63. "Over the office of surveys of Neit's temple of the *ka*, over her temple."

No. 64. "Over (? *her*) surveys of the valley (cemetery?) Her-s-ka (name), the office of plans, Ka-her-s" (name).

In 65 and 66 appears the *unnut* of Neit, perhaps the hour priests of the goddess. *As* here seems as if it must be the phonetic form of 𓂏 ; we cannot say what the orthography should be at such a date. If so, the sense may be—

No. 65. "Place of the hour priest of Neit."

No. 66. "Place of watching of the hour priest of Neit."

No. 67. Here the usual land signs are placed upright, and not sideways as in later writing (see *Royal Tombs*, II, seal 197). The title is repeated, "Lands of Horus (the king) in the Nome of Oxyrhynchos." The leaping gazelle must be a part of the nome-sign, as it is placed between the *uās* and the land-sign determinative.

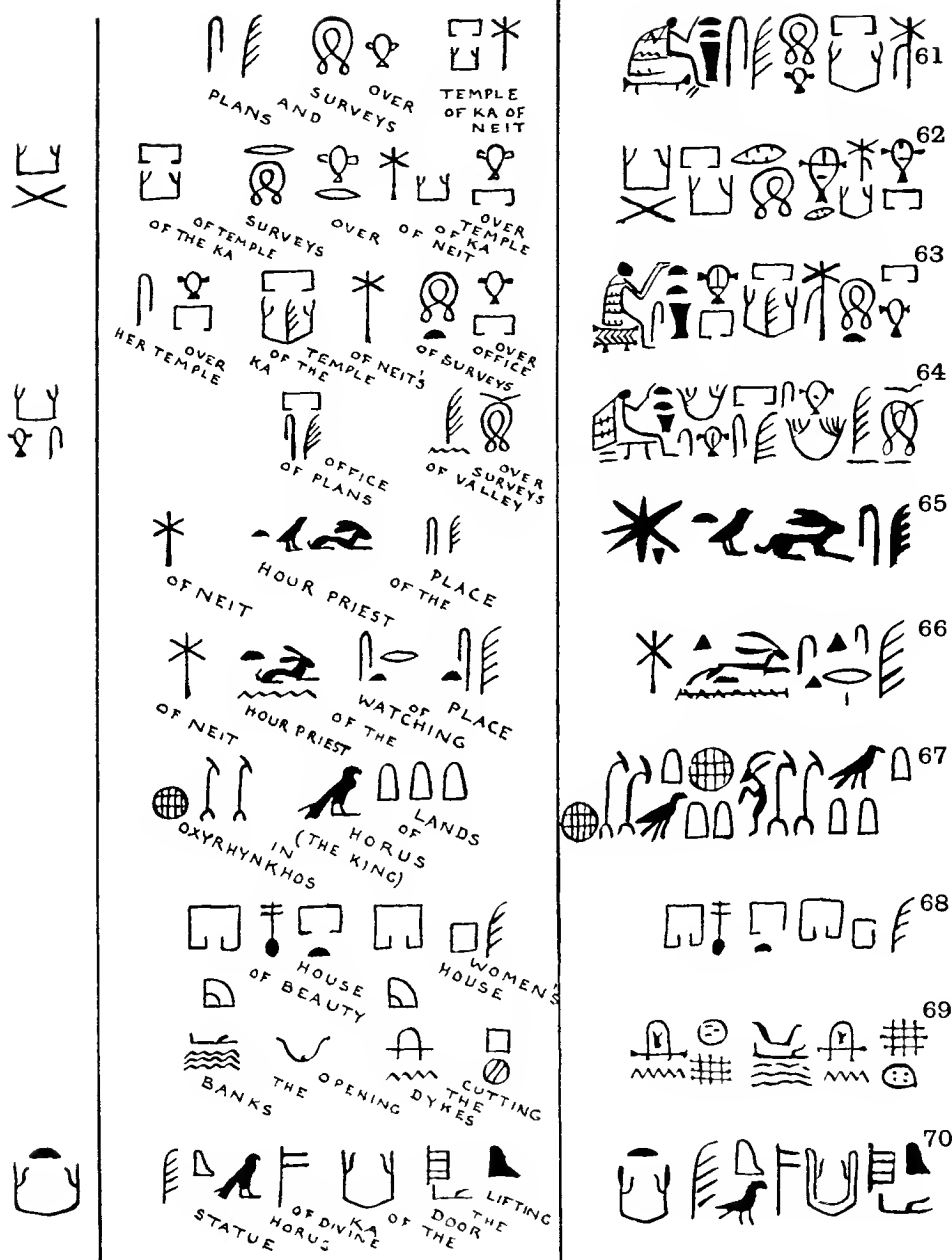
No. 68 is another official seal, that of the *harim*, reading: "The woman's house, the house of beauty." The determinative is not the quadrant building, as in later signs, but an elaborated plan with returns at the entrance.

No. 69 is the seal of the irrigation office: "Cutting the dykes, opening the banks" or dams, the modern *gisr*, see GRIFFITH, *Kahun Papyri*, p. 100.

No. 70 appears rather confused in the structure of the sentence. The first sign *qa*, which in later use is a height or elevation, seems here as if used for an active verb, "to lift," and, as applied to a door, to open: compare the Hebrew simile "Be ye lift up, ye everlasting doors." Or it may be that the arm and hand reads as *d*, so forming *qed*, "to turn round," or turn the door on its hinge. Some such sense is required, by the sign of the door which follows. It seems to read: "Opening of the door of the *ka* statue (*qa*) of the god Horus," or of the statue of the divine *ka* of Horus. The falcon here may be the emblem of the king, and not of the god Horus. This is a large wooden cylinder.

EARLY DYNASTIC CYLINDERS.

We cannot here enter on the wide subject of the sealings of the early dynasties; those being nearly all seals of royal officials and domains, are very different to the



CYLINDERS WITH TITLES.

Earlier in style than the dynastic cylinders with titles.

classes we have hitherto noticed. Five actual cylinders belonging to the Ist or IInd dynasty are here published; they approach the general class of the sealings from Abydos.

No. 71 is the seal of an "Interpreter of (an office) at Senshe." In the name of the office or department we can only read *ma*. The place Senshe is not known. We may note that the *kh* sign never has more than two vertical lines (Nos. 6, 19, 42), sometimes it only has horizontals (Nos. 42, 74), sometimes dots (69). The nome sign has four verticals (67); here a hieroglyph which appears to be a place-sign has three verticals.

No. 72 reads with a play upon the name of the man. "The sealer of the excellent cultivation of crops, Nefertu." For *sesta*, "sealer," see *Royal Tombs*, II, 53. *Renp*, crops, is here written without the *p*, but the growing-plant sign identifies the word. The root is *renen*, young, growing things, and hence plants, flowers, vegetables, or crops in general. The year is called *renpet*, as meaning a season; in fact the reckoning was literally by crops, which were necessarily annual with a sterile period between, owing to the inundation. Apparently the loop *th* is used for the feminine *t* at the end of *renp*. (The rendering of this group in *Mahasna*, p. 20, does not seem applicable here.)

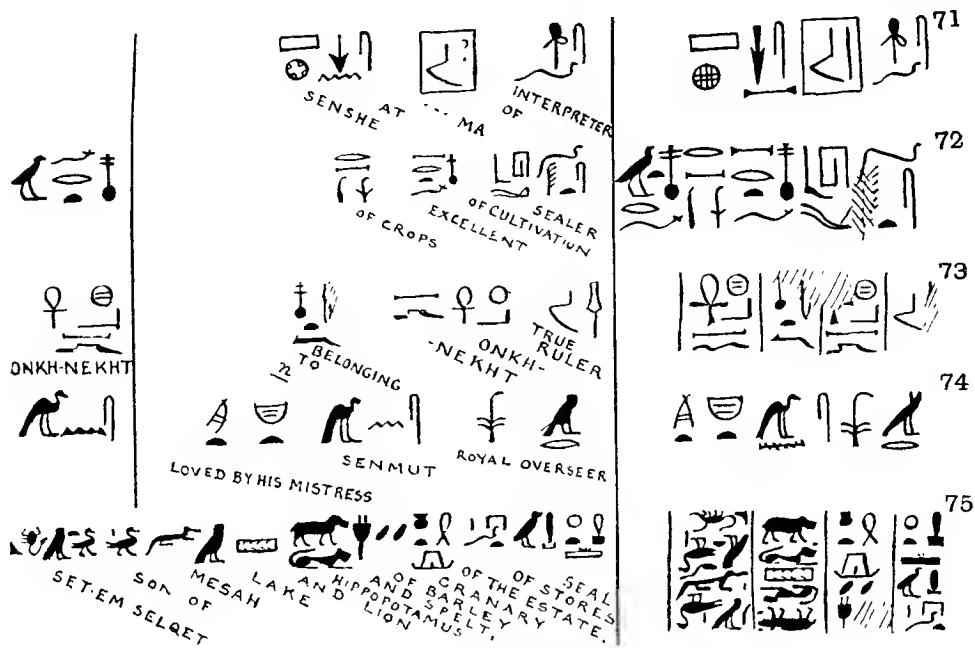
No. 73 is the seal of a man Onkh-nekht, who is described as a "true ruler"; perhaps the *kherp* bearers were a definite peerage, and this was an assertion of a man genuinely belonging to the order. Such a system is suggested by the *kherp* (or *sekhem*) pectoral described on pp. 3-4. He is described also as "belonging to (a goddess)"; the name is defaced, the form of the stick of wood, *khet*, is different from the later sign.

No 74. This cylinder (at Berlin) reads readily, as "Royal overseer, Sen-mut, loved by his mistress," probably he was a steward of the queen. It is curious to see this name, which is so well known in the XVIIIth dynasty, occurring thus early; but with the frequent prayers for *sen* and *sen-sen* of the various gods, it is evidently an early type of name. The title may perhaps be "Overseer of the South."

No. 75 is a large cylinder of white limestone. The reading is simple enough in the first two columns "Seal of the stores of the estate, the granary of barley and spelt." The next two columns are differently understood. Some would see in them only a jumble of noxious animals put there to exert a magic power on anyone who should break the sealing. But it would be difficult then to see why four out of ten should be quite harmless, two geese and two owls. On the other view, the whole of it may have a regular sense. The granary just named was of a district called "the lake of the hippopotamus and lion," a name likely enough in early times, and probably belonging to the Delta. Osiris was worshipped as a lion at Tell Moqdam; Leontopolis was near; the lion was the sacred animal of the Sethroite Nome (DUMICHEN, *Geog. Ins.*, I, lxxvi); and in the Tanite Nome was "the town of the lion." As to the hippopotamus, it abounded in the Delta till Roman times. The name of the lake is therefore likely enough. In the next column are the names Emseh or Mesah "the crocodile," a name familiar later at Siut, in the tomb with the boards of soldiers. The owl *m* is phonetic complement before the crocodile; there is apparently a bent stick *oām* before the owl, suggesting an earlier reading of *oāmseh* for the crocodile. Next, reversing the cylinder, it reads down "son of Sāt-em-Selq." For a parallel to this name see Sāt-em-Thennu,—the goddess of Erment. Following the scorpion is a sign *q*, which would be out of place in later orthography, as a complement. Here we can only say that it appears to have been so used at this time.

An interesting question is whether the seated figures with very long hair represent men as well as women. There is no instance which fixes the masculine form in these, or the *aākhu* cylinders, but several feminine constructions, as in 9, 10, 17, 18, 19, 20, 21, 22, 41, 44. It seems probable, therefore, that these long-haired figures are always intended for women. Other feminine cylinders are 29, 30, 31, 56, 57. The masculine examples are 26, 27, 65, 66, 75. There are thus fifteen feminine to five masculine cylinders; and the masculine ones may well be all of a later period than the majority. It seems, then, that cylinders were at first usually for women, and only later became used in official work by men.

We have now endeavoured to show what the construction and general sense of these earliest inscriptions are, by means of comparison and statistical grouping.



EARLY DYNASTIC CYLINDERS
 With titles known in the Dynastic period.

Doubtless many of the words will be better understood in future; and, indeed, first attempts on a subject always need much revision. The broad lines of the matter seem, however, to be fairly clear, now that a large number of examples have been studied as a connected whole.

W. M. FLINDERS PETRIE.

FOR RECONSIDERATION.

Onkh-em-măot.

MUMMY WHEAT.

ONE of the most frequent questions asked about Egypt is concerning "mummy wheat," reputed to be the produce of wheat, which is stated to have been found with a mummy. From the results of keeping modern wheat we should not expect that any ancient wheat, or other seeds, could germinate. Even three or four years will kill a large number of wheat grains, and ten or twelve years leaves hardly any alive. Hence it is unthinkable that centuries or thousands of years should not destroy the vitality.

When I was at Hawara in the Fayum, twenty-five years ago, I found a great store of corn. It was only late Roman in date; a period from which a large quantity of complex organic matter usually remains, enough to putrefy when wetted. It was not therefore nearly so likely to be sterilised as wheat from earlier ages. There was a large amount, many bushels, so that the oxygen would not act so much on the middle of such a mass as on a small quantity. I took the fullest and finest grains, and planted them next day, so that there should be no time for subsequent changes by exposure. I planted the seeds in rows, in every degree of moisture, from soft mud to merely damp earth, in a sheltered place by a canal. Every possible chance was thus in their favour. There was not a trace of sprouting; and in two or three weeks merely spots of brown decay stained the earth. At the same time I planted some dozens of grape stones, which being hard and woody might be supposed to resist oxidation. The result was equally negative.

It may be asked how the belief in the germination of ancient seeds has arisen; how it can be possible for many reported cases to have been all mistaken. Without knowing every stage of the history of a case it is difficult to see where an error may have crept in. At least we may mention the sources of error in a few cases, which are already traceable. Some unopened mummy coffins were presented to a great personage by Ismail Pasha. On being opened in England some wheat was found inside; it was planted; it grew, and bore seed; so a fresh stock of mummy wheat arose. I heard from a resident in Egypt that he remembered seeing those coffins lying in the stables, with the corn heap run over them. Doubtless some crack, or warp under the lid, allowed grain to slip in, and thus recent grain would be found in a coffin which was yet unopened.

Another source of mistakes springs from the habit of dealers at Thebes making up little pots of corn to sell to tourists. A common little brown pot—quite worthless—has corn put in it, and a lid plastered over it; to be more attractive, the lid is sometimes a scrap of painted cartonnage. Then, shaking the pot, the dealer tells the tourist to listen to the rattle of mummy wheat. It is soon bought, and taken home to plant. A fresh belief in "real mummy wheat" is the result, as the owner is certain that he took it out of a sealed pot himself.


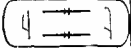
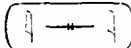



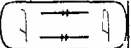



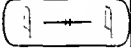

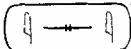

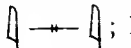
In yet another way errors arise. The late Sir Joseph Hooker told me that when the seeds were recovered from the ancient rubbish of the Laurion mine in Greece, and were exhibited in London, he saw visitors taking up some of the ancient raspberry seeds, and some of the modern seeds which were shown for comparison. After full examination, the hand was just shaken out over the tray again, and the modern seed went among the ancient. When the trials of growth took place, the extraordinary vitality of the seeds in this tray, labelled ancient, astonished the cultivators.

Besides these risks, before the seeds reach the hands that plant them, there is obviously another opening for error. When the master returns with some corn from Egypt, gives an interesting account of the possibilities to his gardener, and hands over the seeds to be planted with the greatest care and every advantage in the greenhouse, it would require a stern moralist to deny him the satisfaction which he fondly anticipates. The appeal may be made to the fact that the growth differs from that of ordinary plants; but unless there are control experiments to prove that it differs from that of any modern seed under the same changed conditions, this evidence is not valid. As a rule these appeals are based on a larger and richer growth of the supposed ancient strain. As in every case it is found that cultivation and selection have greatly improved species in the last two or three thousand years, an unusually fine product is really evidence that the strain must be modern, and the special excellence is due to the kindly circumstances of the advantages given to it by the experimenter.

W. M. F. P.

PERIODICALS.


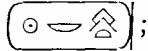
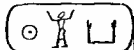
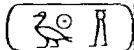
Zeitschrift für Aegyptische Sprache, 50 Band. 1912
(Published, 1913).

SETHE, K.—*Ein überssehener König des alten Reichs*. The king in question is , who has usually been taken to be the same as , with the second — omitted by a mistake of the scribe. But in the tomb of Ptahhetep at Saqqara are two place names,     and    . "Two similarly named estates of one owner in one and the same place would be unparalleled." The chief evidence for the existence of this king is in the personal-name  , which occurs on a slab belonging to and contemporary with the temple of Ne-user-ra, as the name of one of the court-officials of that king. This shows that the man who bore the name must have been born in or before the reign of Ne-user-ra, and therefore could not have taken his name from Assá, who was the second in succession after Ne-user-ra. As to the date of this new king, there are only two places in which he can occur, (1) at the end of the IVth dynasty, amongst the kings whose names are imperfectly known, or (2) as one of the immediate predecessors of Ne-user-ra, between him and Neferar-kā-ra Kā-kā-a, who reigned so short a time that hardly any traces of him remain. The position is fairly well fixed by the personal name   of a priest of the VIth dynasty; for it is hardly possible that a man should take the name of a half-forgotten king unless he were born in that king's reign. Therefore a man who died in the VIth dynasty might well have been born in the reign of an immediate predecessor of Ne-user-ra. In the tomb of the Vizier Uāsh-ptah, in the reign of Neferarkāra, a high official is named ; he is the father or near relative of the vizier, whose son has the same name. It is possible that one of these two may have usurped the throne.

Über den Gebrauch der Königsnamen in Namenszusammensetzungen im alten Reich. This is an appendix to the foregoing paper. It shows that the Egyptians had in the Old Kingdom a definite rule for the use of the king's cartouche-names in place- and personal-names. The throne-name was used for places, the personal-name for persons. There are two exceptions to this rule as regards place-names, the throne- and personal-names of Pepy I and Assa being used indifferently; but only one exception as regards personal-names, Pepy I's throne- and personal-names being again used indifferently. By applying this rule it becomes clear that six kings of the Vth and VIth dynasties had only one name each for both cartouches. These six kings are: Userkaf, Sahura, Nefer-ef-ra, Unas, Teta, and Aty.

BURCHARDT, MAX.—*Zur Rassengehörigkeit der Hyksos*. In the only two places where the Egyptians have thought it worth while to give an exact designation to the Hyksos, they are called *āamu*, and *mntiu sty*, that is they considered them among the peoples whom we call Semitic. E. Meyer pronounces against the view that the Hyksos came from Asia Minor, and joined themselves with the Hittites who overthrew the Babylonian empire, he also acknowledges that the names which appear non-Semitic have not yet been found in Asia Minor. But of the non-Egyptian names which remain to us from the period of the foreign occupation, seven out of nine can be proved to be Western Semitic. From this proportion of Semitic names it is very evident that the core of the Hyksos was Semitic. Therefore Asia Minor cannot be looked upon as the original home of the Hyksos, but rather Syria, particularly Arabia. We have here a migration of Semitic peoples which bears the same relation to the Asia Minor-North-Syrian movement as the migration of the Germanic peoples bore to the Huns.

NAVILLE, EDOUARD.—*La XI^e dynastie* (with 1 illustration). This is a review of the reasons for retaining the order of the kings of the XIth dynasty which Dr. Naville has already put forward. M. Gauthier has accepted this order in his "Livre des Rois," but Dr. von Bissing proposes a new arrangement. According to the evidence of the temple at Deir el-Bahri, there are two kings, each having the same personal name, but whose throne-names, though pronounced the same, are differently written. These are and . The latter name occurs only in the shrines of the princesses, which could not have been built till the temple was already in existence. That the reading *ḥwt* for is correct is shown by the two eyes and the lotus blossom which are represented in the carefully detailed examples of this sign; measurements of the oar in the cartouche show that the length of the handle and the width of the blade are, with one exception, constant, while the oar which reads *kheru* is irregular in size; nor can the sign read *khem* as the oar which is so vocalised is always represented diagonally and with a rope attached. The Horus titles of the two kings differ: and . As to the Table of Kings at Karnak, the reason for the omissions are still to seek. Did Thothmes wish to honour all kings who had done something for Thebes, who were buried there, or who had erected some building however small? It would seem that the list mentions only kings who were really kings, or who were considered as such. It is noteworthy that the kings of this period always mention the name of their mothers, rarely that of the father, indicating perhaps that they obtained the succession through the mother. Mentuhetep I is called "the ancestor." It is suggested that this name was given at a later date, to distinguish this king from his successors of the same name. Before recapitulating his order of the kings, Dr. Naville gives his reasons for believing that this dynasty came from Coptos, and that the kings gave a great impetus to the cult of the Theban gods, Mentu and Amon. The order of the kings then is: Antef I, who was and who is probably the same as the of the stele of Drah abu'l Negga; Antef II, who is also called who is

represented on his stela with his dogs; Antef III is the son of Antef II, and is also called Antef-āa; Mentu-hetep I, whose Horus-name means the ancestor; Mentuhetep II, , who built the temple at Deir el-Bahri; Mentuhetep III, ; Mentuhetep IV, whose inscriptions are found at Hammamât; Mentuhetep V, who made an expedition to Punt. Besides these, there are other Antefs and Mentuheteps, who either were not kings or belong to a succeeding dynasty. The king  , discovered by Mr. Weigall, though perhaps belonging to this dynasty, has as yet been found only in Nubia; as it is uncertain whether Nubia was under the rule of the XIth dynasty kings, it seems probable that this newly discovered king belongs to the XIIIth dynasty.

PLAUMANN, GERHARD.—*Die demotischen und die griechischen Eponymen-datierungen*. Owing to the misunderstandings and mistakes, which are more common in the demotic than in the Greek records, it is obvious that, when the demotic and the Greek do not agree, reliance is to be placed on the Greek. This is particularly the case in the difficult question of Eupator in the order of the Ptolemies as given in the title of the priest of Alexander. The reason being that the demotic was here merely a translation of the Greek. This is shown by the fact that, where in Greek there was a genitive, it has been translated by a genitive into demotic, though the Egyptian would have grammatically required a nominative. Again, in the list of priestesses and in formulae of dates, a glance at the Greek original shows the mistakes of the demotic translator.

SPIEGELBERG, WILHELM.—*Die demotische Inschrift auf der Statue von Rhodes*. (2 illustrations.) The statue is of a standing man, who from the remains of the headdress, is certainly a king. Equally certainly it is a statue of the Ptolemaic period made in Egypt. The head, feet and one arm are lost. On the pilaster at the back is a demotic inscription: "Before Osiris-Apis, the great god, and Isis, the great goddess. Dionysios, the man of Iasos." As it is quite unknown that a private person should dedicate a statue of his sovereign in the temple, one is driven to the conclusion that this Dionysios, who represents himself as a Pharaoh, was one of those Egyptian rulers of whom we hear in the Ptolemaic annals. From the fact that the name is given without titles, he would appear to have been a prominent man. Diodorus (XXXI, 15a) mentions a Διονύσιος ὁ καλούμενος Πετοσοράπης, who raised an insurrection in the Delta, and possessed so much power that he might well consider himself the ruler of Egypt. From the inscription the statue represents a Karian of Iassos; and it is possible that he was a Karian leader of mercenaries in the service of the Ptolemies, who had by degrees arrived at a position when he dared to attempt to seize the crown.

SPIEGELBERG, WILHELM.—*Aus der Strassburger Sammlung demotischer Ostraka*. (3 illustrations. A continuation of a paper published, *A.Z.*, 1911.) No. 5. A fragment of a vocabulary, giving a list of the names of parts of the face. It is probably part of a much longer list of names of parts of the body. It dates from the Ptolemaic period.

No. 6. A protocol of Ptolemy IV Philopator. The dating supplements and is supplemented by the demotic Pap. Hauswaldt 17. The Louvre papyrus published by Boudier, which is dated four or perhaps eight months earlier than Pap. Hauswaldt 17, shows that the name of the priest of Ptolemais was the same in both.

No. 7. A quittance for taxes paid for the sacred crocodile. Though single words here and there are doubtful, the tenor of the document is quite clear. Pechytes has paid in the year 32, twenty *artaba* of wheat for the crocodile in advance for the year 33, the quittance is to show that in the year 33 no further demand can be made upon him. As the Ostrakon comes from Thebes, the Theban crocodile is meant, not the crocodile of the Fayum. The document dates from the second half of the Ptolemaic era.

SPIEGELBERG, WILHELM. *Zwei Kalksteinplatten mit demotischen Texten.* (2 plates.) Pl. I. Bought in Luqsor, said to have come from the Theban cemetery; it is dated to the first part of the Ptolemaic dynasty. This is a writing-exercise, or a rough copy, containing the beginnings of several stories. Lines 1-5 are perhaps an oracle by dream, in which a man appears to the king in a dream and upbraids him with neglecting the gods. Lines 6-8 are from an entirely different story. Possibly the original writing had been washed off this part, and the blank space thus obtained had been re-used. In lines 9-10 is found the beginning of a legend of Osiris, who "went to the place of fighting."

Pl. II. Found by Legrain in Karnak. It is dated between the years 204-180 B.C. Though in the form of a letter, it is probably only an exercise. Its sole interest lies in the mention of the rarely-mentioned king, Harmachis, who reigned in the time of Ptolemy Epiphanes. For his position see the paper reported on pp. 40 and 41 of this journal.

SPIEGELBERG, WILHELM.—*Denkstein einer Kultgenossenschaft in Dendera aus der Zeit der Augustus.* (4 illustrations.) This stele was found at Denderah by *sebakhin*, though the exact spot is not known. It represents a king offering to Hathor, Horus and Nekhbet, all three deities being in animal form; and was dedicated by the great *kenbet* of the god Harsamtus, in remembrance of their restoration of the forecourt of Isis. The word "te" is discussed, and, from the instances occurring on mummy-labels, it appears to be a title, though not a priestly title. It is suggested that it may be an office in the *kenbet*.

SPIEGELBERG, WILHELM. *Hieroglyphisch - demotische Mumienetiketten.* (1 plate, 3 illustrations.) Hitherto only one mummy-label written in hieroglyphs has been known; two more are published here, which were obtained at Luqsor.

No. 1. On the obverse is the hieroglyphic inscription with the demotic below, reading "Kolantes the younger, son of Chrates." On the reverse is a semi-obliterated line of hieroglyphs.

No. 2. A long narrow strip of wood, painted at one end like a miniature obelisk. On the obverse is a vertical inscription in hieroglyphs; an invocation to the goddesses for food for "Te-shere-[n]-pete-Min, daughter of Te-shere-[n]-pete-Min. May Hathor give thee bread. May Menket give thee beer. May Hesel give thee milk." On the reverse a horizontal line of hieroglyphs, and at the end three horizontal lines of demotic repeat the name of the woman and her mother.

SPIEGELBERG, WILHELM. *Ein demotischer Grabstein der römischen Kaiserzeit.* (Plate.) The scene represents the deceased being led by Anubis into the presence of Osiris. The inscription appears to be the speech of Anubis.

(To be continued.)

REVIEWS.

The Voice of Africa.—By LEO FROBENIUS. 2 vols., 8vo, 682 pp., 70 plates, 200 figures. 28s. No Index. 1913. (Hutchinson.)

This is an important book as giving a general summary of the German Anthropological Expedition of 1910-12 in Nigeria. The author organised his work most ably, getting agents to collect information in far-distant districts, especially from exiles who would more readily give it. His care was to reach the ideas of the people and their concealed beliefs; and the value of the objects he collected was immensely increased by his use of them to bring out the thoughts and memories of the natives, with whom he incessantly conversed about them. A certain tone of self-centred satisfaction, and obliviousness of other points of view, may raise a doubt whether he had quite the humble insinuation which brings out confidences. But nothing less than his "push" would have covered so much ground, and gained such results. He cordially thanks the British authorities in many places, for the official help and personal kindness that he met with; yet there was a bad time at Ilife, where the old trouble of people selling what was not entirely their own, led to his being held up by the English, to let the people resume their old possessions. The anthropologist naturally regrets that things which were little valued by natives, and entirely neglected by the English, were turned back again into the great limbo of the unknown, perhaps never to be seen again; yet acquisitiveness must be judicious. Now for the African archaeology.

The discoveries made show that there was a considerable artistic civilisation somewhere between 1,000 and 3,000 years ago, and that the present West African is much degraded below the former status. The principal objects—according to the illustrations—are the heads in terra-cotta, and especially a large one in bronze. They are obviously native in feature, lips and jaws being identical with the modern Yoruban character (see plates pp. 48, 312). The work is excellent, quite natural, full of feeling, and without any mere conventions. No bodies are known belonging to these heads, nor is any definite meaning attached to them. In every respect they are extremely close to the pottery heads from the foreign quarter at Memphis; if any of them had been found there they would—though larger—have been accepted as all of the same class. The Memphite work cannot have come from the Niger, it is too closely in touch with Persia and India; but the idea, and even the workmen, may have come from Egypt to West Africa. The work of the fifth century B.C. may be the source; but nothing so late as the Roman Age. Here there is, then, an indication of date for the early civilisation. Was it an outlier of the Ethiopian Kingdom, like some other sites?

Besides the heads there were other figures, mainly of animals, carved in hard stone, such as granite and quartz. The figures published show that these are thick and heavy, without the artistic ability seen in the heads. Much glazed pottery was also found; and large jars, supposed by some to have been crucibles for melting glass. One piece of sculpture of a figure (p. 311, 2) is obviously a copy of Roman work of about the second century.

The situation of these remains is in old city sites. The ground has been extensively trenched about by the natives in search of valuables, and the mound of ruins is in some places over twenty feet deep. Though the Expedition did some excavating, there is no sense of levels or stratification shown in the record. It is evident that a good amount of careful excavation of successive levels is required to reach historical results as to the culture. Until such systematic work is undertaken, the less anyone digs the better. A Niger Museum ought to be formed, as near as may be to the main source of antiquities, and the native encouraged to feel that it honours him, and that he can look on it as his own, with all reverence for its contents. Then there might be but little trouble in getting at all the priceless ancient work, which is still looked on as sacred.

Another main line of influence was due to Christian Nubia. This is shown by artistic influence, and by traditions, largely collected by the author. The Gothic interlacing patterns, which infected the Roman work in the mosaic of the second century, and in the architecture of the sixth century, were carried by the Christian expansion of the Justinian Age far into Africa. They are found more fully preserved on the Niger than even in Coptic work, and are excellently shown on plates, pp. 624, 634, 636; but, strong as this influence is, it would have been wholly incapable of such work as the terra-cotta heads, —they belong to the Perso-Greek civilisation.

It is melancholy reading how the cemeteries of all North Africa are being ransacked for stone beads, to send to the market at Bida, where they are repolished for modern use (p. 444).

The modern industries are illustrated, both the factories of bronze, iron, glass, and beads, and also specimens of work (458, 464). These show an instructive mixture of influences, African squat globular forms, and Perso-Arab spouted pots; with patterns of Greek honeysuckle and egg-and-tongue, misnamed as strangely and ignorantly as in our terms.

The author divides the religious history into four strata: (1) Ancestor-worship. (2) Shamanism. (3) Social Cosmogony. (4) Islam. He has the fullest respect for the strength and value of the true African culture, and social basis of life, of



Terra-cotta heads from Nigeria,
about fifth century B.C.

which he tells much that is admirable, and essential to a civilisation of such a climate and people. It is only the degraded, and, worst of all, the Europeanised African, that is the unwholesome creature which requires a hard hand.

The historical theories of the author do not detract from the value of his solid work, even if we cannot accept them. He looks to Etruria as the source of the civilisation, passing by sea through the Straits of Gibraltar; he emphasises that the culture is entirely littoral, and not at one with Central Africa. Some features show a link through Morocco, such as the water collection from roofs, and the form of the bow. The hand-loom is linked with the *togo* dress, which is practically the toga. The foot-loom on the contrary is Asiatic; it comes later in Africa, and goes with the made-up tunic. The fascination of a great name leads him to see in this Nigerian culture the Atlantis; and a perfervid, half mystic, vague mode of expression, which breaks out in many parts, leaves the reader at a loss how much to discount from more sober pages. The various matters which throw light on Egyptian customs, we hope to deal with in the next part of this journal. A weeding of much that only relates to the recorder's feelings, would have left room for what we want to know further about his collections on the customs and physical life of the people. There is no reference to measurements or photographs of the people for comparative study. We must be thankful, however, to have obtained so much light on the past of Nigeria, lamentably neglected by the British administration.

Art in Egypt. By SIR G. MASPERO. Small 8vo, 313 pp., 565 illustrations, 4 coloured plates. 6s. (Heinemann and Hachette.)

Histoire de la Civilisation égyptienne. By GUSTAVE JÉQUIER. Small 8vo, 330 pp., 257 illustrations. 3'50 frs. (Payot, Paris.)

Die Kultur des alten Ägypten. PROF. F. W. FREIHERR V. BISSING. Small 8vo, 87 pp., 58 figures. 1'25 marks. (Quelle and Meyer, Leipzig.)

The Continent has awakened to the need of popular education on Egypt; no longer is the art and learning to be reserved for costly works, and its spread to be looked on as a profanation; it is to be compactly reduced to a form where it may rank along with a dozen other subjects in general culture. More than a quarter of a century ago, when it was remarked to Lanzone that a little book was wanted on Egypt, he replied: "A thousand little books are wanted," but he never wrote one. Now here we have three little books, very different in treatment and idea, and we can best value them by their contrasts.

Each of these books must be regarded in proportion to its cost. The German publisher gives plenty for the price, but the two French publishers more than double the scale of generosity. We must not expect the same liberty of scope to the author in books so different in their claims.

Sir Gaston Maspero's book is a great work, which a generation ago would have been produced exactly twice the size in every dimension and accordingly eight times the price, without giving us any more material. The abundance of illustrations all suffer in Hachette's Series on Art from being too small; though this is somewhat compensated by the fineness of the screen (180) which enables a magnifier to be used with good result. The fulness of material is treated with the author's accustomed skill; and the masterly ease with which he conveys his impressions and fixes a picture in the reader's mind, recalls his previous great works. The geniality of expression lightens many pages, as when we read that

"several who belonged to the priesthood insisted on being reproduced in all the splendour of their sacred insignia, and have gained nothing by the process." Again we read "towards the close of the second Theban Age there was a semi-popular art, marked by a variety of aspect and a freedom of technique very disconcerting to those who still hold the immobility of the Egyptian civilisation as an article of belief." All through the work we find the fulness of ideas and of feeling for the sentiment of the art, which will help the readers to see far more than they would ever observe for themselves.

Each great period is treated separately, the Thinite Ist-IIIrd dynasty, Memphite IVth-Xth, Middle Kingdom or First Theban Age, Second Theban Age XVIIIth-XXIst, and Saite carried down to Roman pottery figures. The perception of style is not aided, however, by mixing with the Ist dynasty nearly as many illustrations belonging to subsequent periods; they put the eyes out for grasping what is really characteristic, almost as badly as the binder's insertion of a rampantly-coloured plate of the XXIst dynasty in the middle of the Pyramid art. The printer has also been very unkind in shifting on the description, as much as ten pages divorced from the illustrations, so that the reader has to go back over more than twenty figures to find what is described.

Some of the dicta are surprising, and may, we hope, be reconsidered for the next edition. The stele of King Zet, or more correctly Uaz (for such is the reading of the serpent in the Xth Nome) is more than half attributed by its style to Sety I; but the hawk upon it could havoc all the tame hawks of Sety into mincemeat. Enamels are spoken of in the Dahshur jewellery, which is entirely of inlays. The Meydum Pyramid is stated to be a natural hill, whereas it is all built down to below the pavement level. The temple of Sety at Abydos is stated to be partly in the hill, while there is no hill near it. The English work is kindly referred to in the text, but has suffered in the illustrations. Fig. 14 is not the plan of Bêt Khallaf by Garstang, but the tomb of Qa at Abydos, planned by H. Flinders Petrie. Fig. 17 is by Green, not Quibell. Fig. 108 is from Paget and Pirie, Pl. XXXVI. Fig. 194, "after Champollion," is from *Beni Hasan*, I, XXVII. Figs. 277, 290, are unacknowledged from Petrie's *Tell el Amarna*. Figs. 334, 388, 476, are all taken unacknowledged from Petrie's *Arts and Crafts*, a book which never appears in the very full bibliographies, though other works, two years later, are inserted. Such are the spots on the sun.

In Prof. Jéquier's work we meet with a refreshing aim. "Hitherto the tendency of certain works has been to insist on the general character, to seek to present a homogeneous whole more than the differences between periods . . . The aim of this little book is to counteract these erroneous ideas, and to study successively all the main stages of the Egyptian civilisation." To this end the chapters are clearly arranged in periods, systematically treating the history, monuments, and civilisation of each period. The work is admirably analysed in tables, unfortunately all placed at the end; it has a long and full table of contents, complete list of the 264 illustrations; an ample bibliography, classified under some two dozen divisions; and a full index. The aid of material arrangement is most helpful, and gratifying after the lack of such necessary construction in other books.

The illustrations are happily larger than Hachette's, but less fine (screen 150). They are scrupulously correct as to their sources, and well chosen for variety. The text is clear and careful in its expression; though one misses the touches of *esprit* which lighten the pages of the previous work. One may hope that the author will reconsider a few matters. The paintings of the pre-historic boats might be

thought safely settled to be such after publishing the Hierakonpolis paintings, which show the great steering-oar, with the steersman holding it; the interpretation as a village seems entirely forced and impossible. The tying-up rope is also shown hanging in front; and on a vase (ANCIENT EGYPT, p. 34) are men punting with long poles pushed from the shoulders. The division into two periods of first and second prehistoric civilisation is not noted, although the distinctions between the two are very marked. The Elamite connection of the dynastic invaders is dismissed in favour of a Nubian origin; but the very close resemblance of the style of animal figures on the cylinder-seals from Susa and Abydos cannot be ignored in this way. The African affinities—which are numerous—may all be due to the earlier people, or to the Sudany invasion of the IIIrd dynasty. Sneferu should surely be put in the end of the IIIrd dynasty; and the XIIth dynasty figure 175 is of the deceased, and not an ushabti slave figure. Fig. 215 is certainly not Apries, and, by the style of the group of sculptures to which it belongs, cannot be attributed to the Saite Period. Such matters are but small, and the whole style of the work and its arrangement may we hope render the view of the changing civilisations familiar to French readers, and be followed with advantage on this side of the Channel.

Freiherr von Bissing's work is of a very different character to the others. The structure of society and the literature are what he seeks to impress on the German reader, 60 pages out of 84 being given to these heads. Probably no one west of the Rhine would respect the shell of officialism so much, but administration is sweet to the Teuton, and the author wisely knows how to meet his taste. As the book covers more ground than the others, though it is shorter, it necessarily treats subjects more in outline. The account of the literature is, however, very full in proportion, hardly any well-known writings being passed over. We might have hoped that the author of the most magnificent publication of the art would have treated it more fully in a handbook, but probably the inexorable publisher would not illustrate it. A welcome feature of the illustrations given is that nearly half are from the collection of the author, and therefore are of new material not already familiar.

Museum of Fine Arts Bulletin, 66. Nov. 1913. 14 pp., 22 figs. 10 cents. Boston.

Occasionally a welcome outline of some of Dr. Reisner's work appears in the bi-monthly *Bulletin* from Boston; in the lack of any more satisfying record of this great mass of work, we may be thankful for such a publication. This number contains the account of clearing a group of family tombs at Gizeh, one of which was quite untouched. These were of three generations of architects, who lived under Assa, Unas, Teta, Pepy I and Pepy II, the close of the Vth and first half of the VIth dynasty. The persons were: Anta Snezem-ab under Assa, Mehy and Khum-enta under Unas and Teta, Nekhebuău under Pepy I, and Im-thepey under Pepy II.

The tomb of Anta contained a granite sarcophagus; it had been plundered, but the body lay complete. In pits of offerings near by, were limestone cases for meat offerings, copper tools and models, and a beautiful diorite cup inscribed with the name of Teta, showing the date of the burial.

In the court of Nekhebuău were many inscribed and sculptured stones which could be refitted. These give biographical details of his employment over various public works. He was six years directing great works in Heliopolis, and rose to

be chief architect. He also went to Sinai, where he left an inscription of his expedition at Maghareh.

The latest of these tombs was undisturbed. The sloping passage was blocked up solid with twenty-five feet length of stone. After breaking and withdrawing this, the burial was found perfect. Outside of the long box coffin lay a pile of copper models of tables, with little vases on them, and many copper bowls and libation vases with long spouts. It is a most valuable series for dating the types of the latter part of the VIth dynasty. Inside the coffin lay the body, badly mummified, with an alabaster head-rest, two alabaster jars, a copper mirror, and a deep collar of bead work of gold and faience beads. In the ruins of a chapel was found a wooden statue, of good work, well preserved.

Das grab des Ti.—By GEORG STEINDORFF. 4to, 12 pp., 143 phot. plates, 20 drawn plates. 1913. (Hinrichs, Leipzig.)

This magnificent volume at last rewards us for waiting half-a-century for the publication of the most celebrated of the great tombs of Saqqareh. It is worthily reproduced, and Prof. Steindorff is to be congratulated on the clearness and good effect of this grand series of photographs of the whole walls, in this immense picture-book of early Egyptian life. He has judiciously taken a white paper, which much increases the visibility of detail beyond that of the other large issues of tombs, such as Kagemni and the Rue de Tombeaux. There is something still to be gained by a yet whiter and denser paper. We hope that a second volume will give us the other facilities that appeared in the "Mastaba of Kagemni"; there is yet lacking the outline key drawings to the walls, the enlarged drawings of details, and the discussion and translation of the short inscriptions which are so generally neglected.

Archaeology of the Old Testament. By Dr. EDOUARD NAVILLE. 8vo, 212 pp. 5s. 1913. (Robt. Scott.)

The essential thesis of this book is that the greater part of the Old Testament was written in cuneiform character, until it was translated into Aramaic by Ezra. The principal reason assigned for this view is the prevalence of cuneiform writing in Palestine, shown by the Tell Amarna letters, and the tablets found at Taanach and Gezer which refer to ordinary business. All of these, however, belong to the Canaanite population, and when we look at the Jewish and kindred people we see the Siloam inscription showing a long past of cursive writing, the Sumerian ostraka, the long inscription of Mesha, and the still earlier cursive writing at Serabit. It is true the Canaanite habit may have been to use cuneiform, yet Prof. Naville seems to attach too little importance to the examples of writing of the Semitic races. His view is the older one of the prevalence of a pure Phoenician script from which other alphabets are a degradation; and he does not treat alphabetic writing on the same basis which he rightly insists upon for language—namely, that the varieties and dialects are all of equal human value, although one may have become a literary standard.

It is difficult to see how the origination of Genesis and other writings in short separate documents, is an evidence for cuneiform writing rather than alphabetic or hieratic; or why Moses should be supposed to have been taught cuneiform in Egypt, rather than the all-prevalent hieratic, which was in use among all classes down to the common workman.

Matters where there will be a more general agreement with the author are his outline of the Exodus movement, his excellent connection of "the land of Egypt as

thou goest unto Zoar" with the fertile Delta unto Zar the eastern frontier town, and his deduction about the worship from the Aswan papyri long before any possible influence of Ezra and the Babylonian party. Though this work is primarily concerned with the Palestinian writings, it touches Egypt so largely that it claims our attention here.

The Ancient History of the Near East.—By H. R. HALL. 8vo, 602 pp., 33 plates, 14 maps. 15s. 1913. (Methuen.)

The purpose of this volume is to widen the view of the University scholar, and give him a direct acquaintance with that greater world, which he first learns something about from Herodotus. For this purpose it opens with a general survey of the position of modern study, and then develops the pre-historic Greek world, to break in the student to the idea of remote ages. After this it is allowable to launch fully into Egyptian and Babylonian history, taking them together in three main periods, early, middle and late. The Hittite, Syrian, and Palestine history also come in for full notice, so that the student will be fairly set on his feet as to all the changes of the near East before the Hellenic age.

There are, of course, many points on which the author has to take one side of a disputed position; and in most of these he represents the more moderate and reasonable view. Musri is taken as being Egypt. The long reigns and importance of the Hyksos are not suppressed, as has been fashionable lately. Manetho is respected as a careful writer, though sometimes in error, and often corrupted. The treatment of the Amarna letters strongly leans to accepting the Khabiri as Hebrews, and the Exodus is put in the expulsion of the Hyksos. This, however, ignores the place-name Raamses in Exodus, and the record of four centuries of oppression. It seems more likely that there was a partial exodus along with the Hyksos, the Hebrews perhaps appearing as the Khabiri, and the Israel of Merneptah; while the Exodus record refers to the remainder of the Israelites leaving under the XIXth dynasty. It is unfortunate that the chronology concordantly recorded by the Turin papyrus, Manetho, and Herodotus is rejected solely on grounds of style, which have no value in proving periods of time. Definite records cannot be treated so lightly. It is a little curious that the long labours of the Research Account and British School are entirely omitted, while reciting single volumes of various other writers on excavations.

As a whole the book is of great value in putting a complex mass of synchronous history into an accessible form, and not ignoring differences of opinion where such uncertainties occur.

Les Inscriptions hiéroglyphiques et hiératiques du Ouâdi Hammâmât.—By J. COUYAT and P. MONTET (Mem. Inst. Fran. Arch. Orient). 4to, 119 pp. (plates to appear in 2nd volume).

This volume opens with a general account of the inscriptions of each great period. Some interesting lists of peculiar orthography are given. The inscriptions left by the various quarrying parties, on the rocks, are then transcribed, in their geographical order, 266 in all, with notes and some discussion. It would have been most desirable to state the nature of the rock on which each is inscribed, and the nature of the rock in the nearest quarry, as a guide to the localities of the stones used in each period.

An interesting question, which has not been touched on by the authors, is that of the seasonal dates of the inscriptions, as showing at what times of year the

quarry expeditions worked. We shall here follow the dating in "Historical Studies"; and as the Egyptians' chronology and that of Berlin differ by an entire Sothîs period, the seasons would be the same on either chronology. The following are the dated inscriptions :—

Page.	King.	Year.	Month.	Day.	Season.
97	Aty ...	1	4	2	... August 14
74	Pepy I ...	18	11	27	... April 1
79	Mentuhotep II...	2	2	15	... End of February
97	" ...	2	2	23	... "
98	" ...	2	2	25	... "
81	Sankhkara ...	8	9	3	... July 6
85	Senusert I ...	16	3	—	... Jan. 22-Feb. 22
64	" ...	38	4	4	... February 21
72	Senusert II ...	11	4	8	... February 14
49	Senusert III ...	14	4	16	... February 15
48	Amenemhat III	2	3	1	... December 27
70	"	3	3	13	... January 9
51	"	19	5	15	... March 7
47	"	20	3	13	... January 5
112	Ramessu IV ...	2	2	2	... July 1
108	" ...	3	9	26	... February 18
108	" ...	3	10	—	... Feb. 23-Mar. 23
41	Darius I ...	26	10	10	... October 24
67	" ...	26	12	—	... Nov. 13-Dec. 13
100	" ...	27	3	—	... Feb. 14-Mar. 16
87	" ...	28	9	11	... August 25
96-7	" ...	30	8	15	... July 30
52	Xerxes ...	2	1	19	... January 4
43	Nekhtnebf ...	3	4	—	... Feb. 16-Mar. 16

It appears that there were two quarrying seasons; the main one between December 13 and April 1 (15 examples), the lesser one between July 1 and October 24 (6 examples). The main season was for convenience of the work in the cool weather; the lesser season when labour was at liberty during the inundation. The hot season work was more usual in late times.

Amulets, Illustrated by the Egyptian Collection in University College, London.—

By W. M. FLINDERS PETRIE. 4to, 58 pp, 47 photo. plates, 7 drawn plates. 21s. (Constable.)

(Where books are in any way connected with the British School, a brief summary of such will be given without any opinions.)

This begins with a discussion of the principles of the use of amulets, and their meaning. The Egyptian amulets are divided into five classes: Similars which resemble the parts of the body to be protected; Amulets of Powers which are emblems of abstract powers; Amulets of Property, which imitate the offerings for the dead; Protective Amulets for defending the person or the mummy; Amulets of gods, human or animal.

Each of the 275 different kinds of amulet is then described, arranged in these successive classes. First is stated the ancient name; then the meaning of the amulet; the period of use; a list of the examples photographed; a list of all published examples of the materials used; the positions known on the mummy;

lastly, the number of examples in published collections. This book thus summarises what is known on the subject of each amulet, beside describing the specimens at University College, which has the most complete collection.

The plates contain full-size photographs of about 1,700 amulets, also copies of two ancient lists of amulets, drawings of the largest gnostic amulet, and plans of the positions of amulets on twenty-four mummies. It is intended to follow this volume with others, similarly discussing various branches of Egyptian antiquities.

Paganism and Christianity in Egypt.—By P. D. SCOTT-MONCRIEFF. 8vo, 225 pp. 6s. (Cambridge University Press.)

This is a valuable handbook, collecting and discussing material from very different sources, though not adding new facts. The chapters deal with the late phases of Egyptian religion, the Christian literature of the early centuries, Christian mummifying and burials, the very debatable amount of Christian influence on sculpture, a summary of the Gnostic books, and an outline of the rise of monasticism. The lamented death of the author has left the close of the work incomplete, but what we have here will serve as a guide book to students, and a sufficient outline for the general reader.

In some directions there are unfortunate omissions. The Hermetic books are never mentioned; yet with their internal dating to the Persian age, they give a priceless view of the spread of ideas, symbols and expressions, in pre-Christian times. Christianity is hardly credited before 180 A.D. in Egypt: but it is impossible, with the strongly Jewish Delta close to Palestine, that it should not have received Christianity as early as Antioch, 42 A.D., and long before there was a body of Christians martyred in Rome in 64 A.D. The certain introduction of Medians under the Persian rule into the Mediterranean area is ignored. The connection of Osiris with corn is classed as being only of late date; but the distribution of the cities where the corn-festival took place points to its being prehistoric, before the nome system was completed.

Synthetic Studies in Scripture.—By W. SHAW CALDECOTT. Crown 8vo. 181 pp. 2s. 6d. (Scott.)

It is unfortunate that anyone at the present day should confuse readers by statements in defiance of fundamental documents, known for half a century. To state that "Shepherd kings belonged to the XVIIth and XVIIIth dynasties," and proceed to treat Akhenaten and all his ancestors as Hyksos, is directly contradicted by the expulsion of the Hyksos under Aohmes, and all the tenor of his successors. To state that "there are few subjects such as high priests, royal nurses, court dwarfs, and the like, who are not known by several personal appellations" is quite untrue, and is invented to identify Joseph with Amenhetep, son of Hapy. The census lists of Numbers are cut down to a tenth without any trace of evidence, and regardless of the strong internal evidence that the hundreds are independent of the misunderstood thousands. The suggestions of this writer need to be tested by a wider reading and judgment.

NOTES AND NEWS.

GREAT changes are in progress among the staff of the Antiquity Department in Egypt. Brugsch Pasha, whose service dates from the days of Mariette, has now retired; he will be succeeded in the curatorship of the Cairo Museum by Mr. J. E. Quibell, who worked for some years with the Egyptian Research Account. Mr. Weigall, who is at present Inspector-General of Antiquities in Cairo, will retire after the coming summer; his seven or eight years' service in Upper Egypt having made too much strain on his health. Mr. Cecil Firth has been appointed as Inspector at Luqsor, but will be transferred to succeed Mr. Quibell at Saqqareh. M. Daressy has been transferred from the curatorship of the upper floor of the Museum to the administrative position of Controller. Above all this looms the impending retirement of the master-mind: Sir Gaston Maspero will probably before long leave his Directorship, which he first entered on thirty-four years ago.

Decorations in Egyptology are almost unknown, but the Emperor of Austria has conferred on Mr. Weigall the Cross of the Order of Franz-Joseph, for services to science.

Mr. Quibell is concluding his Saqqareh work before entering on the Museum duties. He has lately found a coffin with boats and model workshops, of the Middle Kingdom period.

Dr. Reisner's programme this year includes work at the Gizeh Pyramid cemetery with Mr. Howe all the season; work at El-Bersheh for the latter part of the season by Mr. West; excavations at Sêsi (Delgo) in Halfa Province in the first months of the year by Dr. Reisner; also work by Mr. West early in the season at Kerma in Dongola Province. Mr. Clarence Fisher, well known from his plans of Nippur, has returned to America for museum work, but will be back in Egypt by April.

From Antinoë Mr. J. de M. Johnson writes: "After several years of excavation for papyrus cartonnage the Graeco-Roman branch of the Egypt Exploration Fund has this year again turned its attention to the Roman Period in undertaking work on the rubbish mounds of Antinoë. It is difficult at present to estimate the value of the results. The mounds are without any top layers of Arabic, and are uniformly dry to the ground level. On the other hand the necessary strata of *âfsâ* are scarce, and papyrus when found tends to be extremely brittle and decayed."

From Prof. Naville's work at Abydos all detailed statements are reserved for the present.

At Lisht Mr. Mace has cleared a large area south of the pyramid of Amenemhat; he has found numberless pits, mostly of the close of the XIIth dynasty, and parts of mastabas which were pulled to pieces during the later Empire. The water level is a difficulty in the larger pits, and pumping is requisite.

At Thebes the great work of Mr. Robert Mond on the tombs is progressing in the hands of Mr. Mackay. He has photographed the tomb of Queen Nefertari, and is repairing the tombs of the Engravers (181), of Dedy (200), of Kha-em-hat (57) where casts of the missing parts now at Berlin are being inserted, and the fine tomb of Menna (69). Also tombs 111 and 139 have had the walls treated, and the open tombs at Drah abul Negga are being tended.

At Aswan Prof. Schiaparelli is clearing tombs on the western side. One tomb which he has opened was rifled in Ptolemaic times; the rock staircase of another tomb is being cleared, and may lead to a fine monument; this is just below the Coptic monastery.

Prof. Steindorff is working at Ibrim in Nubia before taking up Hawara later in the season.

THE EGYPTIAN RESEARCH STUDENTS' ASSOCIATION.

OUR Founder, Mrs. Sefton-Jones, informs me that many of the branches of this Association have enlarged their bounds considerably during the last two years. The Local Honorary Secretaries are much to be congratulated on the results of their labours. In many of the centres, the members are real students, and require very little help in providing material for their meetings; others, however, need considerable assistance, which is always gladly given from headquarters. One very popular series of papers sent round, during last winter, dealt with "Domestic Life in Ancient Egypt," comprising sculpture, painting, arts and crafts, architecture (religious and domestic), and dress. Another, almost equally sought after, was on "The Foreign Neighbours of Egypt," Syrians, Cretans, Hittites, etc. A very small minority of branches have suffered from temporary diminution, or eclipse; for the most part, they are gradually growing larger. Some desire to keep a fixed limit of membership, as the members meet in a private drawing room; others are actively promoting increase of membership. All are furthering the interests they have at heart, by serious pursuance of the subject under various aspects, and the standard attained in papers and lectures has distinctly risen in the last few years.

The papers for the present season are given below, in continuation of our list in the January number.

LONDON. (Hon. Sec., Mrs. Sefton-Jones, 18, Bedford Square, W.C.)—Meetings, monthly. At 8 p.m., tea and coffee, 8.30 p.m., lecture. March 26, lecturer, J. G. Milne. April 23, Mrs. Aitken, on "The Development of Egyptian Art." May 20, or other Wednesday afternoon, at University College, 3 p.m., Prof. Flinders Petrie's lantern-lecture on this season's New Discoveries.

BOURNEMOUTH. (Miss Horn, Canford Cliffs.)—Feb. 11, 3.15 p.m. (tea, 4.15 p.m.) at Royal Bath Hotel (Mrs. Johnson), paper on "Period of Pyramid Builders"; history and art of IIIrd-VIth dynasties. March 11, 3.15 p.m. (tea, 4.15 p.m.) at Sherstone Cottage, Branksome Park (Mrs. Naesmyth Webb), paper on "Period of Pyramid Builders."

EDINBURGH. (Mrs. Melville, 16, Carlton Street.)—Dec. 18, 3 p.m., Prof. Kennedy, D.D., on "Israel in Egypt." Jan. 30, Mrs. Aitken, on "The Development of Egyptian Art." Feb. 28, Prof. Stevenson, D.Litt., on "A Story-teller of Fifth Century B.C."

FARNHAM. (D. Hill Cook, Serendah, Firgrove Hill.)—Jan. (?), lecturer J. G. Milne.

GLASGOW. (Miss Bruce Murray, 17, University Gardens.)—March (?), Evening meeting.

GLOUCESTER. (Miss Ellis, 10, Alexandra Road.)—Papers read at meetings, and distribution of Journal.

HASTINGS. (Mrs. Russell Morris, Quarry Hill Lodge, St. Leonards.)—Jan. 12, Dr. Spanton, on "The Egyptian Water Lily." March and April, two more lectures.

REIGATE. (Mrs. Paul, Hilton Lodge.)—Jan. 27, Miss L. Eckenstein on "Mummies," also Feb. 23, on "Amulets," also March 24, on "Dress, Religious and Secular."

ROSS-ON-WYE. (Mrs. Marshall, Gayton Hall.)—Dec. 31, 3 p.m. (Mrs. Cobbold) Mrs. Sefton-Jones' paper on "Recent Excavations" read: Jan. 28, 3 p.m. (Mrs. Schomberg) Historical Course continued, IVth-VIth dynasties. Feb. 25, Meeting (Mrs. Gray). A small lending library on Egyptian and Ancient History, free for members' use, is established in Ross.

TINTAGEL. (Mrs. Harris, St. Piran's.)—Jan. 5, paper on "Early dynasties and Pyramids." Feb. 2, Lecture on XIth dynasty given, and Flinders Petrie's letter from Illahun read. March or April, Prehistoric. April or May, paper on 1913 Exhibition of British School.

MANCHESTER. EGYPTIAN AND ORIENTAL SOCIETY. (Miss W. M. Crompton, The University.)—Open meetings at University. Jan. 14, 8 p.m., T. Eric Peet, on "Sinai as known to the Egyptians." Feb. (?) H. R. Hall, on "Greek Monasteries." Feb. 24, Prof. Lehmann-Haupt, on "Tigranokerta Re-discovered" (not open). March 10, Prof. A. Dickie, on "The Origin and Development of Building amongst the Jews." April 25, A. M. Blackman, on "The Painted Tombs at Meir." May (?), W. Burton, on "Egyptian Glazed Ware."

HILDA FLINDERS PETRIE.

THE TOMB OF MENNA.

THIS tomb is one of the best preserved at Thebes, owing to its not having been exposed to modern ravages. It was found in the work of Mr. Robert Mond, who has done so much for the safety and care of these tombs, hitherto so strangely neglected by the Government and the Societies that have worked at Thebes. The painted



WIFE AND CHILDREN OF MENNA IN A BOAT.

chapels at the southern capital are hardly secondary in value and interest to the great sculptured chapels of Saqqareh.

In the frontispiece is a harvest scene which shows how the Egyptian could grasp actions in his memory, and reproduce them like a Japanese; for we cannot suppose that he got models to pose for all these lively little groups in action. The Egyptian always cut off the ears of corn close, and left the straw to be pulled up afterwards whole and sound. The two men are carrying off a net full of ears to be threshed. Below them amid the standing straw are two girls fighting. The right-hand one (A) has evidently been kneeling down to gather up the ears that she has gleaned; the other girl (B) has run forward to dispute her right to them, and B has seized the wrist of A with her right hand, and clutched the hair of A in her left, A retaliates as well as she can by seizing B's hair in her right. So far A is checked, but B cannot do anything, and is worsted in the matter of hair-grip. There the squabble has waited for three thousand years.

Beyond is a sycomore fig tree, which casts its thick shadow, and bears its tough fruit close to its branches. A boy is sitting at rest on a stool, while another boy plays on a long pipe, like a modern *zammareh*, not a flute blown sideways, as has been described. Over his head hangs a water skin, hung up in the cool shade to evaporate, and give a cold drink; observe that the neck is tied back separately, so that it should be loosened to get a drink, without shifting the skin. It is a curious sign of the comfort of the times that boys out in the harvest field have well-carpeted stools to sit upon, and do not lounge as best they can; certainly no modern Egyptian would think of such a luxury.

In the lower scene are two more little gleaners. One has a thorn in her foot; so she has seated herself on her gleaning bag, and stretches out her leg for her companion to remove the thorn. The friend's gleaning bag lies on the ground between them, just such a bag of coarse fibre as is commonly found in the period of the New Kingdom. A boy is stripping the heads off flax stems by pulling them through a forked stick fastened to the ground. The general well-being of the people is seen by the gleaning girls—the poorest people—wearing a long *malás* down to the ankles. The boys and men naturally only wear the usual waist-cloth. Both the men and one of the boys, however, have the leather net over it, made of slit leather work, to take the wear of sitting and rubbing about.

On the previous page is a part of a scene of the wife and daughters in a boat with Menna, drawn with perfectly unfaltering and even lines. Below, the ducks flutter and quack in the lotus pool as the boat advances; and one of the girls leans over the side to pick the lotus buds as they pass.

It was in the clearance of this tomb that a charming statuette was found, two views of which are here given as the Portraits of this quarterly part. On comparing the profile with that of the wife in the boat scene, it is so precisely like that we must see in this figure the wife of Menna. Why is her face perfectly preserved while not a trace of her husband's statue is to be found? The state of the tomb shows that there was a special spite against him. His throwstick in the picture is cut in two; his figure viewing the estate has the eye gouged out that he may not see; the measuring rope for his fields has the knots scraped away; his hand in spearing the fish is destroyed. Yet there was no ill-will to his gracious wife, her face and figure remain on the wall and in the statuette. For the photographs of the figure we are indebted to Mr. Mond, as also for the cast of the figure (which is now in the Cairo Museum), from which the portrait on the cover is taken. The tomb scenes I photographed in 1909.

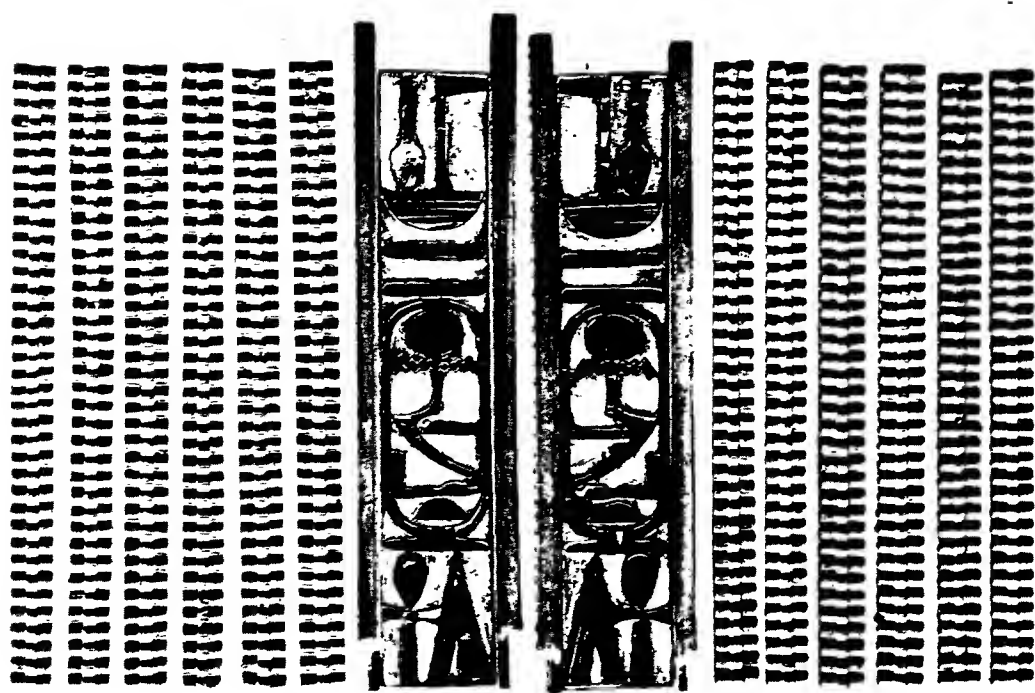
W. M. F. P.



WIFE OF MENNA, CAIRO MUSEUM.



WIFE OF MENNA, CAIRO MUSEUM.



PECTORAL OF SENUSERT II ;
PECTORAL AND ARMLETS OF AMENEMHAT III.

ANCIENT EGYPT.

BRITISH SCHOOL OF ARCHAEOLOGY IN EGYPT.

THE TREASURE OF LAHUN.

IN the previous number of ANCIENT EGYPT an account has been given of the principal features of the pyramid of Senusert II and its surrounding constructions. We now turn to describe the greatest discovery of the year, indeed by far the most valuable group that has ever been found outside of the Government reserves.

On the south side of the pyramid of Lahun, four large shaft-tombs were found, doubtless all belonging to members of the royal family. They had all been opened and plundered, probably in the decadence of the kingdom before the Hyksos. They had then been left open, and gradually filled up with dust, and mud washed in by occasional storms. In one of these tombs stood a granite sarcophagus, the massive lid of which had been partly pushed off and the edge broken away, enough to let a boy in to clear out the contents, and nothing whatever was left in it. The tomb appeared to have been entirely ransacked, and only a recess at the side of the passage remained to be examined. This was filled with hard washed mud like the rest of the tomb, and nothing could look less promising. The trained workman was told to clear it out and finish the tomb.

After a few cuts of the pick, the man saw some tubular beads of gold appearing. He at once removed the local workers who were about him, and sent word to the staff. Mr. Frost was at liberty, and went down; after taking out about a pound weight of gold beads, and beginning to uncover the band of the diadem, he fetched Mr. Brunton to come down and continue the clearing. The rest of the afternoon—10th February—and on up to midnight, the clearing went on, without even extracting the diadem, as the ground was so hard. Mr. Brunton slept in the tomb, and worked at intervals during the night, removing the diadem safely next morning. For five days, and several evenings also, Mr. Brunton, with sometimes Mr. Willey, steadily worked through the cubic yard of hard mud, every scrap of which had to be loosened most carefully as the jewellery and ivory work were scattered throughout it, and a single rough cut might do great damage. After that work, the whole of the earth was brought up to the huts, and, for some weeks sifting went on gradually and thoroughly, and all the richer portions were completely washed away as liquid mud, leaving the most minute beads behind. Thus over ten thousand beads were recovered.

Such a discovery would have raised a hornet's nest of dealers and robbers about us, if it were known while we were at work. But steps may be taken to secure the silence of the workman, without recourse to the ancient practice of killing all who knew a secret. The power of the purse in our regular system of reward was enough, and not even the man's own brother could find what the reward had been. So far as rumours reached Egypt, their nature showed that they were due to the betrayal of confidences in another country, and not to anyone in Egypt.

(1) The principal object was the diadem, bearing the royal uraeus on the front. It is formed by a broad band of highly burnished gold over an inch wide, and large enough to pass round the bushy wig worn in the XIIth dynasty. The uraeus is of open work, inlaid with lazuli and carnelian; the head is of lazuli, which was found loose in the mud. In washing the mud we recovered one of the minute eyes of garnet, and also the little ring of gold which surrounded it, and thus the head was completed again. Around the polished band were affixed fifteen rosettes, each composed of four flowers with intermediate buds. At the back a tube of gold was riveted on to the band, and into that fitted a double plume of sheet gold, the stem of which slipped through a flower of solid gold. The thickness of the plumes was such that they would wave slightly with every movement of the head. At the back and sides of the crown were streamers of gold, which hung from hinges attached to the rosettes. The whole construction was over a foot and a half high. The crowns found before at Dahshur are of designs different from this, which shows a reminiscence of the head-band or diadem painted on the figure of the princess Nefert, at the close of the IIIrd dynasty, or the silver crown of the XIth dynasty at Leyden. It preserves, therefore, the earlier style of the Old Kingdom. The plumes and streamers were found laid flat together beneath the circular band; they seem to have been carefully placed in this manner originally.

(2, 3) Two pectorals of the same design were found; one with the cartouche of Senusert II, belonging to the princess when young, the other of Amenemhat III, twenty or thirty years later. The cartouche is supported by the kneeling man, holding palm branches which rest on the tadpole representing millions of years. This group is flanked by two falcons whose backs form the outline of the group. The earlier pectoral is inlaid with minute feathering of lazuli and turquoise; the later with a different feathering of lazuli and white paste, which has probably been green. The gold backs of the pectorals are finely engraved, with most detail on that of Senusert II. The outlines of these, formed by the hawks, are more graceful than the square frames of the Dahshur pectorals. They were probably suspended by necklaces of the very rich deep amethyst beads which were found here. See the frontispiece showing the engraved gold backs of the pectorals.

(4) A massive collar was composed of large gold double lion-heads, one of which is made in two halves, sliding together to serve as a fastener. Between these came smaller quadruple lion-heads, as the threading holes are just the same distance apart, and the number (7) is the same.

(5) Another collar was of large gold cowries, one of which is in two halves sliding together, and therefore separate from the lion-heads. Some extra spacing is needed between these, and the double rhomb beads of gold have threading holes the same distance apart, while their number (16) is just double that of the cowries. These probably go together.

(6) A third collar was of the old type of long pendant or drop beads, of gold, lazuli, carnelian, and amazon-stone. The only beads which can have been placed between these are the rhombic beads of carnelian and blue amazon-stone, and these cannot have been threaded with the rhombic gold beads as they are too wide to fit those.

(7) Another necklace was a double row of amethyst beads, with two gold lion-claw pendants. This combination is suggested by the double beads of gold balls soldered to the claws, of the same size as the amethysts.

(8) A pair of deep armlets are formed of six bars of gold, each bearing two columns of thirty-seven rows of beads, which held apart as many rows of minute beads

of carnelian and turquoise. These armlets were each fastened on by sliding a broad strip of gold in grooves, the strip bearing the name and titles of Amenemhat III in blue and white, on an inlaid flat ground of carnelian. See frontispiece.

(9) A similarly made pair of bracelets had eight bars with twenty-three rows of beads, but without an inlaid sliding piece.

(10) Two pairs of small gold lions were found, which had double threading holes from end to end of the base. The distances of the holes prevents their belonging to either the bracelets or armlets, or to any of the larger beads. They were probably threaded on double strings of small beads, fastened with a small gold slider of the double rope-tie pattern.

(11) Two pairs of larger gold lions had each a single thread hole from end to end. They must have been on single strings of small beads, probably combined with the following:—

(12, 13, 14) Three motto groups of gold inlaid: with *fu ab*, “satisfaction of heart”; *ab hetep* between two *netjer* signs, “the heart in peace amidst the gods”; and *onkh* between two *sa* signs on *neb*, “life amidst all protection.” Each of these has a vertical slider at the back, with a ring on each part, hence they were fasteners for a single string of small beads. They were probably hung on the arm as amulets, each by a single line of beads.

(15) There were also two other amulets, *shen* signs of gold inlaid, meaning the fulness of life and possessions. One has a slider at the back, the other has a different form of slider, a cover slipping over a fixed tongue.

By the study of the gauges of all the double threading, the diameters of beads, the numbers of different patterns, the numbers of various fasteners, the known length of necklaces, the usual patterns on statues and paintings, and such details, it is possible to re-construct the original arrangement with but few uncertainties. It is much to be wished that the materials of the great Dahshur finds were similarly restored to something like their original appearance.

Other toilet objects were found: a pair of copper knives, a pair of copper razors with gold handles; three obsidian vases with gold mounting on brim and base, and around the lid. The main piece was a large silver mirror with handle of obsidian, and cast gold head of Hat-hor; the handle is inlaid with bands of plaited gold, and leaves around the base of carnelian and paste—blue and white—in gold settings. Two inlaid gold scarabs have gold wire rings to them; another scarab is of lazuli; a fourth one, of lazuli, engraved with the cartouche of Amenemhat III in a scroll, is probably the most perfect known, for the sharpness and finish in every part, and the intense blue of the stone.

Of the funerary outfit there were eight alabaster vases with lids of the usual type; and in a limestone chest were the alabaster canopic jars. These jars are of the finest style, with beautifully finished human heads, and sharp inscriptions, recording the “Royal daughter, Sāt-Hathor-ant.”

The jewellery had been mostly placed in three caskets. One was covered with panelled ivory veneer, in the recesses of which all round were large gold *sed* signs. A second was of ivory veneer, with two beautifully carved strips on the lid, bearing the names and titles of Amenemhat III in relief. The third box was only of wood, which had entirely perished like the wooden basis of the others. It is hoped that the ivory caskets may be eventually restored from the thousands of fragments which have been collected.

The extraordinary conditions of the discovery seem quite inexplicable. The tomb had been attacked; the long and heavy work of shifting the massive granite

lid of the sarcophagus, and breaking it away, had been achieved ; yet all this gold was left in the recess of the passage, untouched. Had the crown been dragged out of the coffin, it would have been bent in some part ; but it was quite uninjured, and placed as if carefully deposited. The whole treasure seems to have been stacked in the recess at the time of the burial, and to have gradually dropped apart as the wooden caskets decayed in course of years, with repeated flooding of storm water and mud, slowly washed into the pit. It cannot be that the whole was deliberately buried in mud to hide it, as then the parts would have been in exact position. On the contrary, everything showed a long gradual decay, during which the wood and the threads were rotted by wet, the beads all rolled apart, the parts of the armlets had fallen in every direction, and all the ivory veneer had dropped off and lay in a confused stratum of fragments. This was all bedded over by mud washing in, to more than a foot in thickness. The whole treasure was standing in an open recess, within arm's reach of the gold-seekers, while they worked at breaking open the granite sarcophagus.

Lahun contains some of the strangest puzzles. An immense chip heap was banked up in a quarry, a very usual and unimportant matter. Yet in this heap is an offering pit built of fine stone, surrounded by an enclosure wall ; at its side stood four wooden boxes containing bowls of offerings. Near it, in the chips, were other boxes of offerings, each sealed by a different official. Close by lay the great steering oar of the king's funeral barge. Why should officials present boxes of offerings, and why should there be an offering pit, in a quarry ? Does it all hide something ? Was Senusert ever buried in the pyramid ? Was his burial hidden elsewhere ?

At the foot of the pyramid a similar box was found sealed up, containing the skeleton of an infant. Is this a sacrifice ? These, and many other questions, we must try to settle in the continuation of the work.

Coloured plates of all the jewellery will be given in the annual publications, and some in the frontispiece of the next volume of this Journal.

The Treasure of Lahun and the other discoveries of the year will be exhibited from the 22nd of June to the 18th of July, hours 10 to 5, at University College, London. Admission to the Exhibition is free, without ticket.

W. M. F. P.

BRITISH SCHOOL OF ARCHAEOLOGY IN EGYPT.

HARAGEH, 1913-14.

SOME very successful excavations have been carried on this season, by the second camp of the British School, on the southern half of the Gebel Abusir, an isolated strip of desert lying in the broad cultivation between the entrance to the Fayum and the Nile. The work was chiefly concentrated on the south-west side, near the village of El-Harageh.

This rich site, which for some reason has been neglected by the excavators, both English and foreign, who have worked in the district, yielded a series of isolated cemeteries of the following periods:—Middle Pre-historic, IIrd-IVth, Vth-XIth, XIIth, XVIIIth, XIXth and XXIIrd dynasties, together with the inevitable large quantity of Roman and Coptic burials. In addition to these cemeteries, which numbered fourteen, there were several large deposits of potsherds bordering on the cultivation; these had been much disturbed by *sebbākḥyn* (collectors of nitrous earth), so much so that it is doubtful whether they were thrown out from some town now under the cultivation area, or whether they mark small village sites of which all other traces have disappeared. The numerous inscribed objects from these mounds mention only one king—Senusert II, builder of the Lahun Pyramid, a few miles away; and the pottery was of the town type, very similar to that of Kahun, no later types than the XIIth dynasty being found. The same king is alone mentioned on the inscribed objects of the adjoining large XIIth dynasty cemetery.

Especially interesting was the presence of Hyksos pottery like that found at Tell el-Yehudiyeh (black ware, incised with white triangular pattern and dots). These were found both in the sherd-heaps and in tombs which, from the pottery and other objects, appear to belong to the XIIth dynasty. It thus bears out the view that for some time before the Hyksos dynasties, a considerable infiltration of Syrians was taking place.

A further feature of these sherd-mounds was the presence of the foreign "Kamarēs" pottery, which Prof. Petrie demonstrated twenty-five years ago to have been imported in the XIIth dynasty. This pottery belongs on the Cretan side to the period Middle Minoan II, and thus serves as another contemporary link between the histories of Egypt and Crete.

Nearly all the tombs had been robbed anciently, though they had almost escaped the attention of modern plunderers. It is a noteworthy fact that in a very large number of graves, the skull was all that remained whole of the body; even the long bones, which might be expected to last as long as the cranium, were smashed to pieces or absent. We refrain from dogmatising on the matter, as there is no direct evidence that Egyptian tomb-robbers respected at any time or in any way the dead whom they were plundering; further observation may throw more light on this curious circumstance.

The season's work has resulted in a rich mass of objects, all of which will fortunately be on view at the Annual Exhibition of the School in July. First should be mentioned a valuable group of the XIIth dynasty, consisting of inlaid

cloisonné jewellery of the same class as the Dahshur and Riqqeh work, but in silver instead of gold, as well as twenty-four perfect vases in alabaster, serpentine, and limestone, and a fine stela. From another grave came several gold fish, of the kind now known as *shāl*, one of them being probably unique for exquisite workmanship and truth to nature.

Another rare group is an untouched "button-seal" burial. The seal has a cross pattern and is accompanied by leg and hand amulets of carnelian, some remarkable gold work, and a large quantity of beads.

A number of figures in wood and stone, mostly in perfect preservation, and of the XIth-XIIth dynasties, were also obtained. A pair of wooden figures of a man and his wife (XIth dynasty) are of especially fine work.

Of the several steles, the large stone of Nebpu is of special importance, as, apart from its admirable workmanship, the inscription invokes an unusual god, Hez-hotep, and the "king of the south and north, *Kha-kheper-Ra*," in the *nesut dy hotep* formulae, and mentions local place-names and titles.

The collection of beads and of alabaster vases is very large, and over 250 scarabs, mostly of the XIIth and XVIIIth dynasties, as well as a quantity of Middle Kingdom inscribed cylinders, were found. A couple of painted tombs (probably of the Xth dynasty) of a *Har-shef-nakht* and his wife, several XIIth dynasty papyri, several wooden coffins, and many pots and sherds written in hieratic, together with the steles, form a satisfactory group of inscribed objects.

Two very small cemeteries of the Middle Pre-historic period have yielded a large quantity of pottery, also some flaked flint knives of the excellence peculiar to this early time.

Excavations have also been made at Ghorâb (Gurob), in a cemetery of the XIXth and later dynasties. The work of the camp has been assisted by Mr. F. P. Frost, who undertook all the conservation, storing and packing of objects, Dr. Walter Amsden, who measured over 300 skulls, and Mr. Guy Brunton, who gave us great help at the beginning of the season; while we are responsible for the recording, planning, and general management of the camp.

REN ENGELBACH.

BATTISCOMBE GUNN.

DUNCAN WILLEY.

EGYPT EXPLORATION FUND.

THE EXCAVATIONS AT ABYDOS.

THE work of the Egypt Exploration Fund at Abydos, carried on during the winter, 1913-14, by the present writer, assisted by Prof. Whittemore, Mr. Wainwright, and Mr. Gibson, has been a continuance of what had been done in 1912. Then, we had started from Mrs. Flinders Petrie's excavations at the Osireion, from the door discovered by her and Miss Murray in the Hall, at the end of the passage called on the plan: "Entrance from the temple." (See *Osireion*, Plate XV.) This passage we entirely cleared; it is forty-five feet long, and leads to what we thought at first to be two separate chambers. In front of its end, at a short distance, was a huge lintel fifteen feet long; we see now that it is the doorway to the following construction which we excavated completely.

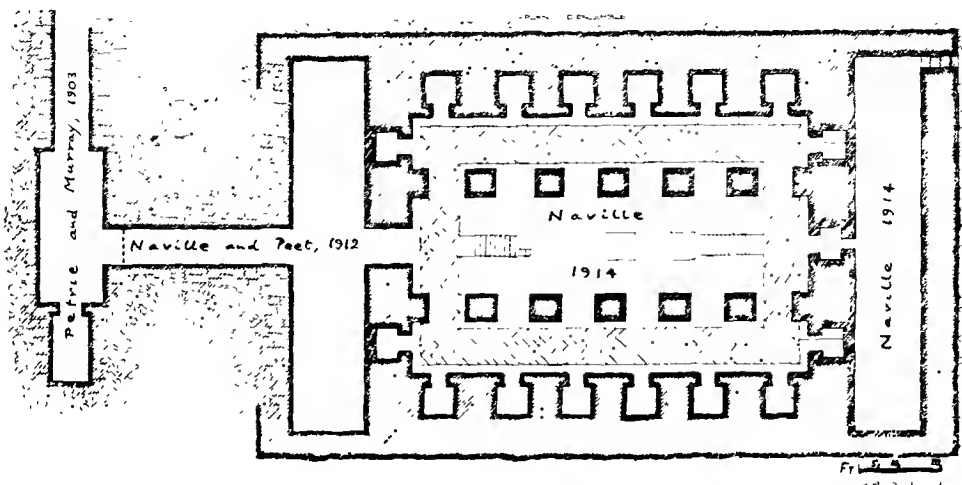
We began in front of the doorway and of the thick wall which extends right and left. We traced the enclosure wall, and we pushed forward towards the temple of Seti. After a work of eleven weeks the construction was cleared, the plan of which is here reproduced, and is as follows: It is a rectangle, the inside of which is about a hundred feet long and sixty wide; the enclosure wall is twenty feet thick. It consists of two casings, the outer one is of limestone rather roughly worked; the inner one is very fine masonry of a red stone, which we thought at first to be quartzite, but which Dr. Hume declared to be a hard kind of sandstone coming probably from the country near Assuan. The two long sides are roughly north and south, as the Arabs say, the entrance is in one of the shorter sides, and the other is the end wall, which is about twenty feet from the temple of Seti.



The inside of the rectangle is divided into three naves of unequal size, the middle one being wider than the side aisles. The naves are divided by two colonnades, each having a row of five huge granite monolithic pillars, on which rests an architrave six feet high, made of blocks more than fifteen feet long. Architrave and enclosure wall supported the ceiling, also made of monoliths six feet thick.

Ceiling, architraves, pillars, in fact all the inside, are of Assuan granite. The whole building, the style of its masonry, the total absence of any decoration reminds one very strongly of the so-called temple of the Sphinx, so that I think that this construction goes back to the Age of the pyramids, it may be even older than the temple of the Sphinx. Unfortunately, the fine material has contributed to its destruction. In one corner only, in the northern aisle, the ceiling has been preserved. This corner gives an idea of what must have been the majesty of the construction, with its enormous stones.

When we reached the third layer of the masonry in the enclosure wall, we discovered that all round the construction there were cells all alike, seventeen in number, six feet high and wide. They are absolutely bare, without any ornament or inscription. They all had doors, with one leaf: the holes in which they turned are still visible. It was to be expected that these cells opened on a floor, but in front of them there is only a very narrow ledge which goes all round the construction. Below the ledge the fine masonry continues, and at a depth of about fourteen feet the water was reached at a level which is now that of the infiltration in the cultivated

land. We could not go deeper, owing to the quantity of granite blocks which have been thrown there. Water was found in several places, and it is clear now that the two side aisles and the small sides of the middle one were a continuous pool, on both sides of which was the ledge. On the outer side of the pool are the cells, on the inner the pillars of the colonnades. The ledge is not a slab, it is the big stone of the masonry which has been hollowed out, so that the ledge projects over the water. The masonry goes down probably another twelve feet below the present level of the water.



Opposite the doorway, the end wall is covered with sculptures, showing Menepthah worshipping Osiris and other gods. There are also large representations of the two usual amulets, the  and the buckle . This has decidedly a funcrary character, and seems to indicate a tomb. At the foot of this end wall is the ledge and the door of a cell. The back wall of this cell has been broken through, so as to make a door which has been blocked afterwards with stones. This door gives access to a large chamber, wider than the whole construction, with a ceiling made of stones leaning against each other. The room was found empty. The sculptures on the ceiling and on the side walls, which are of the time of Seti I, are of a nature indicating that it is the so-called tomb of Osiris, the entrance of which was concealed, since it looked exactly like a cell. I consider this chamber as being of a later date than the pool.

The middle nave was a huge block of masonry going down as deep as the other side of the aisles. The level of its floor is that of the ledge and of the cells. It supports the pillars of the colonnades, and it has two staircases, one at each end, going down towards the water. This platform is an island, being surrounded by water on its four sides. There is no path to reach it, even at the doorway, which has only the ledge.

Thus the result of last winter's campaign has been the discovery of the great pool, which undoubtedly is Strabo's well, and of the tomb of Osiris which was entered from the pool, and which I consider as being of later date.

EDOUARD NAVILLE.



EXCAVATING THE GREAT HALL OF THE OSIREION.



INTERIOR OF THE GREAT HALL OF THE OSIREION.

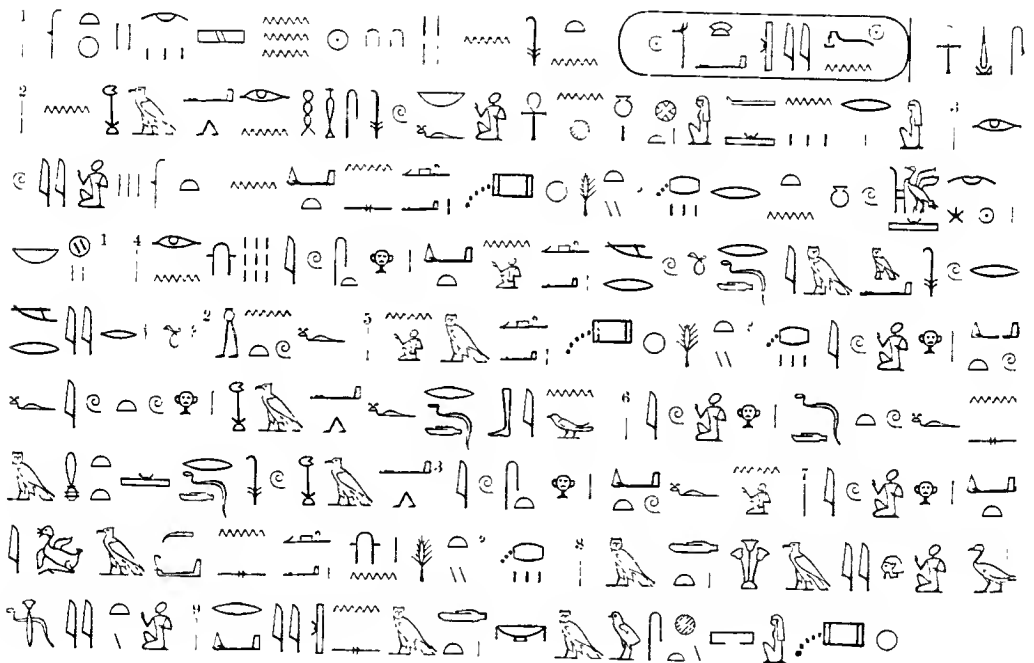
HIERATIC OSTRAKA FROM THEBES.

AMONG the ostraka at University College, London, collected from Thebes by Prof. Petrie, two of the longer and more complete examples are here transcribed and translated. They are both of the XIXth dynasty, written on flakes of white limestone. The hymn to Mut has red spots at intervals to separate the lines; these spots are darker than the text in the photograph. Probably both of these came from the clearance of the Ramesseum.

TRANSCRIPTION.

Recto.

No. 1.—22 × 16 cm.


*Verso.*TRANSLATION, *Verso.*

¹⁰ There was given to her by T-o-merut,

¹¹ her daughter $\frac{1}{4}$ sack

¹² In toto $1\frac{1}{2}$ sack for the woven cloth

¹ The same ligature as for instance in P. Abbott 5'5.

² Against the reading  see note in the translation.

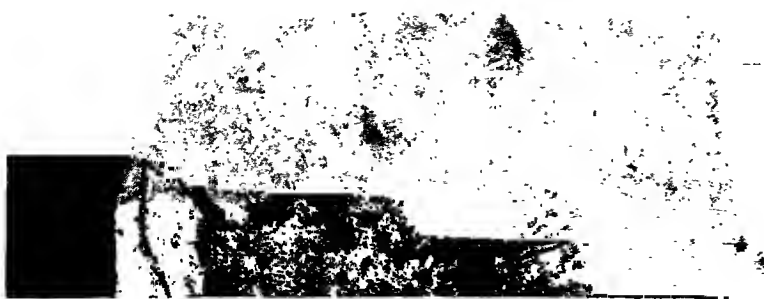
³ The point is evidently accidental.

TRANSLATION, *Recto*.

¹ Year 2, 3rd month of Harvest (Epiphi) day 24 of King Set-nekht
² (the day) when Hes-su-enbōf dismissed the Theban woman (?) Hunura
³ I gave her during three years in every single month $\frac{1}{4}$ sack of wheat (durrah),
⁴ makes 9 sacks. She gave me a woven cloth¹ saying: Give it to the cloth shop(?).¹¹
 It was brought
⁵ to me as valuing $\frac{1}{4}$ sack of wheat. I gave it (but) they refused it saying: It is
 bad.
⁶ I repeated it to her, saying: It has been refused. She gave it to me
⁷ and I sent² her a sack of wheat
⁸ by Hoye, the son of Si-utoyet.
⁹ There was given to her by Nub-em-woskhet $\frac{1}{4}$ sack



Recto.



Verso.

¹ One cannot read the name of a person and translate "give it to Merrra!" as in that case the preposition ought to be *n* and not *r*.

² Correct $\beta_3 < t\omega > n = s$.

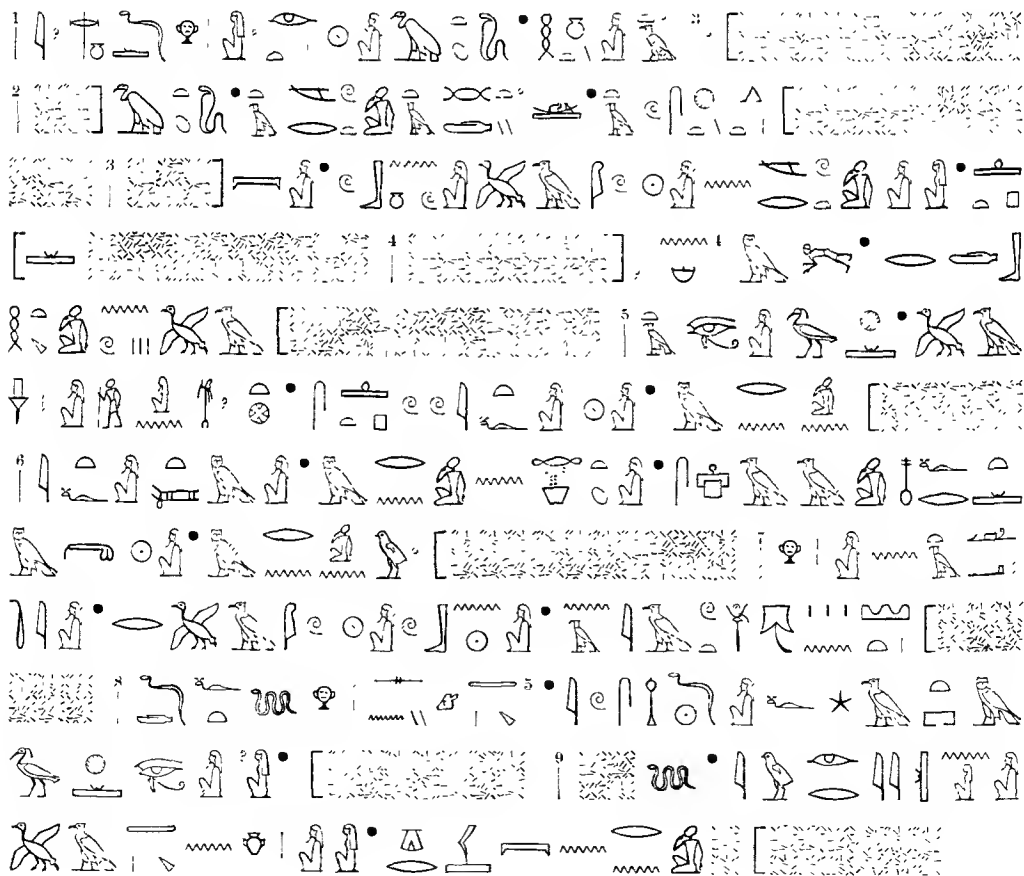
NOTES.

Owing to lexicographical difficulties the contents of this curious text are by no means clear. The principal matter is a bargain. The weaving woman Hunura tried to sell a cloth, or what may be the sense of *mrw*, by the mediation of Hes-su-enbōf who had dismissed her, if I rightly understand the sense of the second line,¹ after she had been in his service for three years. This cloth having been refused by the draper on account of its bad quality, *Hes-su-enbōf* bought it himself, giving for it in all $1\frac{1}{2}$ sacks of wheat, *i.e.*, 6 times as much as the woman had asked, having paid only $\frac{1}{4}$ sack. How all this is to be connected, is not clear to me. At any rate the text is interesting in several respects not the least for its date, proving that Set-nekht has reigned at least 2 years.²

HYMN TO MUT.

TRANSCRIPTION, *Recto*.

No. 2.— $16\frac{1}{2} \times 13\frac{1}{2}$ cm.



¹ It is impossible to take h^3 in the technical sense of divorce known by demotic contracts.

² Concerning the year 10 + π GAUTHIER (*Livre des rois*, III, p. 154) has rightly questioned the correctness of the reading of WEILL (*Recueil inscr. Sinai*, p. 215, No. 118).

³ Or h^3 .

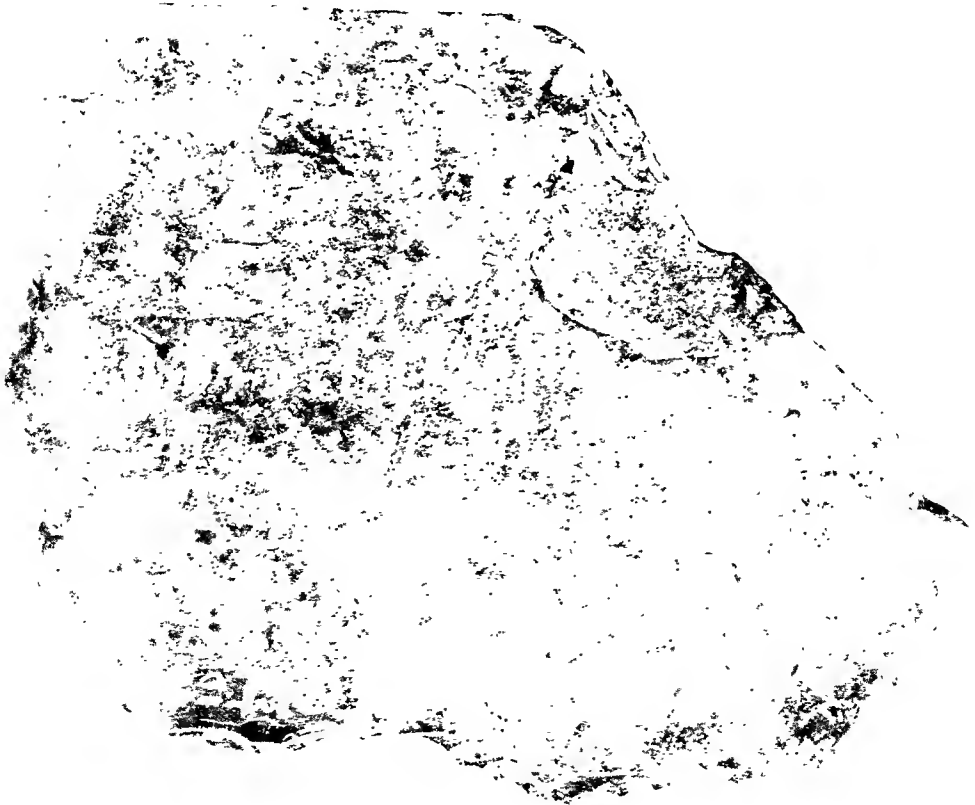
⁴ Or h^3 .

⁵ The signs above the line are the remnants of the first text covering the stone.

TRANSLATION.

*Recto.*¹

- 1 Hail to thee, eye of Rê, Mut—Lady of [.
 2 Mut—beloved by the bark of the morning Sun—walking proudly
 [.
 3] heaven(?)—The Sun rises at thy pleasure—[he] sets [at thy
 pleasure
 4] bows down(?)—, in order to ask life for them, the [.
 5 The excellent Eye of Uzat,—the great image of Thebes(?)—who satisfies his
 father Rê,—in the name [.
 6 father Atum—in the name of Schesemtet, the goddess(?)—the beautiful sage
 one before Rê—in the name of [.
 7 face of the only one² towards the rising Sun.—The wild cattle of the
 mountains [.
 8 the worms kiss the ground.—He illuminates the Nether-world with his bright
 eye—[.
 9 . . . Thou hast made the earth after thine own heart.—Thou hast settled the
 heaven in the name of [.



Recto.

¹ The line — corresponds to the red dot of the Egyptian text and denotes the end of a phrase.





² "The only one" is a name of the sun, appearing as the uraeus snake. See SETHE, *Untersuchungen*, V, p. 122.

Verso.



Verso.

1 The whole cycle of gods jubilates.—The meadows (?) exult.—The Hathors
 [rejoice in The birth-goddesses (?)]
 2 jubilate in the birth house.²—The Mentuy, their voices (sound) in the heaven.—
 [. The meadows (?)]
 3 are bright with dew³ in . . . —O thou who sees the only one—Heaps (?)
 [.
 4 Sun, who sees the hill⁴—the voice jubilates and my land is rejoicing—[.
 5 with cymbals.⁵—The southern nations praise her⁶ face.—The northern . . .
 [.
 6 Cheerful is the face of Hathor—when the inundation comes in its time.—The
 meadows
 7 corn—The zizi plant sprouts leaves—. . . [.
 8 —O thou who seest . . . in the face of [.
 9 who beholds every day.

¹ This is scarcely    .

² A special room in the temple consecrated to birth goddesses, in connexion with the divine birth of the king. ³ I suppose there is a confusion between '3 d t "net" and "dew."

⁴ Perhaps a geographical name.

⁵ = KOTKU : KEUKU.

⁶ This suffix may be corrected to "thy" (2nd person fem.).



Verso.

NOTES.

The Recto contains a hymn to the Theban goddess Mut, called "eye of Rê," an epithet known also from other texts.¹ This expression, originally signifying the Sun, has become very early a special goddess,² which has been identified at several places with their principal goddesses. Our text shows that in Thebes the eye of Rê was Mut, whilst generally it was Hathor. I am not quite sure whether the text of the Verso, evidently being a part of a religious hymn, is a continuation of the hymn to Mut.

W. SPIEGELBERG.

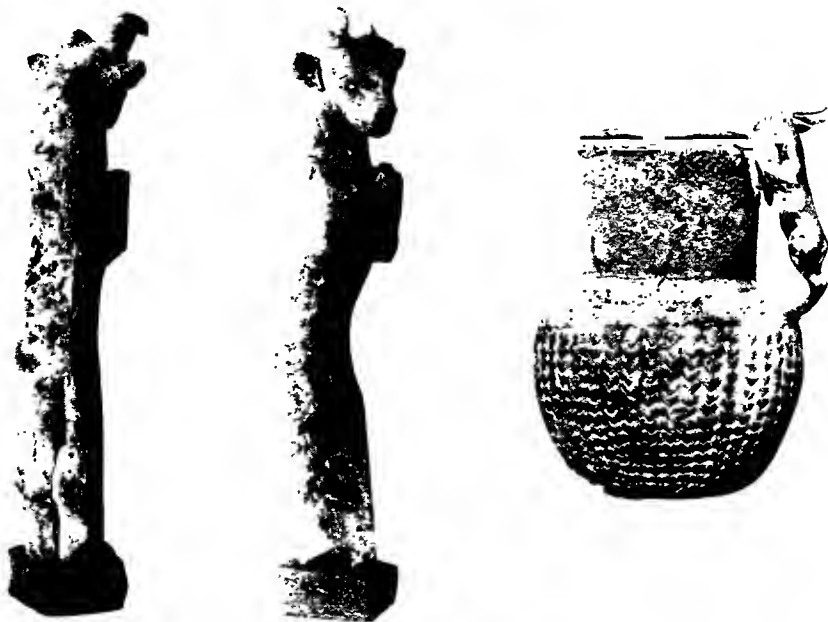
¹ *Ä.Z.*, 1895, Tafel IV, Cairo Catal., 440 ff., 78 (Miroirs). PIERRET: *Catal. Louvre*, I, 9. JUNKER: *Auszug der Hathor*, p. 34.

See SETHE: *Untersuchungen*, V, pp. 123 ff.

TWO SILVERSMITH'S MODELS FROM EGYPT.

TWO small terracotta objects (Figs. 1, 2, 4) were bought by me some years ago at Casira's shop in Cairo. They were said to come from the same place as the silver and gold vases of Tell Basta, now in the Cairo Museum. The dealer believed them to have been found together, and he showed me some more pieces of the same hard yellowish clay as the figures which I purchased. I believe a full examination will show that his opinion was correct.

Fig. 1 (5,391 in my Collection). Figure of a goat,¹ 80 mm. high. One horn is missing, and all four feet. The head, and the back with the tail, are of excellent spirited work; the side of the legs, especially on one side, is well treated, while the front of the figure is quite neglected. By far the best part is the head, where even the nostrils are indicated, and the eyes accurately modelled. But the style is in no way what we should expect for a clay figure; it is of the style of metal work, every detail being engraved, and it strongly resembles the figure of the goat forming the handle of the silver jug from Tell Basta.



Figs. 1, 2.

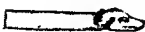
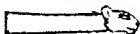
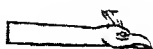
Fig. 3.

When once the comparison between the two figures has been made, the attitude and the conditions of the clay goat are explained; it was the model for casting a figure intended to stand in the same way as a handle on a jug, and thus there was no need for elaboration on the front of it. The feet now missing were attached to the jug. As this terracotta is a model for a figure in some more

¹ That this is intended for a goat is probable, although the horns are turned the wrong way; a gazelle is hardly likely, and still less any other animal. Nor is there any reason for supposing a fantastic animal to be intended, although the shape of the legs might at first suggest such an explanation. It is well known how many irregularities the horns of goats show, even in European countries.

costly material, it belongs to the same age as the silver vase of Tell Basta, and very probably is from the same workshop. Handles in the form of animals are well known in Egyptian pictures of the New Kingdom ; for examples see CHAMPOLLION, *Monuments*, Pl. 131, and W. M. MÜLLER, *Asien*, 348 = W. M. MÜLLER, *Egyptological Researches*, II, Taf. 2 and 6, from the tribute of Asiatic people ; compare also the metal vase of the time of Thothmes III, SCHAEFER, *Altaegyptische Prunkgefasse*, p. 44, and WAINWRIGHT, *Annals of Archaeology and Anthropology*, VI, Pls. IX, X, XI, amongst the tribute of the Keftiu as well as of the ordinary Asiatics.

If the origin of this kind of ornament may point to Syria and the Aegean world, it was quite adopted by the Egyptians themselves, as the jug from Tell Basta shows. It is perhaps a new argument for the purely Egyptian character of the silver find from Tell Basta that we are able to lay our hands on the clay models which the silversmiths used.



Figs. 4, 5, 6, 7.



Fig. 8.

Fig. 4 is perhaps as interesting. It is a round rod of about 7 mm. in diameter, and 30 mm. long. There is no sign of a break at the undecorated end. The other end shows the head of a calf, of very beautiful work. All the details around the eyes and the mouth are wrought with the utmost care, and the modelling reminds us of metal work, as in the previous figure. We have evidently another model before us, and as the material corresponds exactly with the clay of which the goat is made, there is a strong confirmation of this explanation. No such material is otherwise known, down to Hellenistic times. The fragments of another goat, and of some undetermined object, which I saw at the same dealers, were of exactly the same hard clay, evidently specially prepared for such models for a silversmith. This clay was in Hellenistic and Roman times used for a special kind of small vases, decorated with reliefs, and generally gilt ; they are copies of gold vases of that age. (Compare on these vases, SCHREIBER-PAGENSTECHER, *Ausgrabungen in Alexandria, die griech.-ägypt. Thongefasse*, p. 70 et seq.)

What was the purpose of the object for which our terracotta served as a model? The first idea that suggests itself is that of a rhyton. Such rhyta are known down from Mykenaeen times in Greek art (*Kast, Arch. Jahrb.*, 1911, 249), and DE MOT (*Revue Archéologique*, 1904, II, 201 et seq.) has collected a certain number of parallels among the Egyptian drawings of vases brought by foreign ambassadors to Egypt (compare WAINWRIGHT, *l.c.*).

But all of these vases, just like the Minoan rhyta, always show a very short neck ; they are in reality only heads of animals. On the contrary, among the

precious vase forms collected by Prisse d'Avennes from the monuments of Rameses III (*Collection des vases du règne de Ramsès III, Karnac et Medinet Habou*, compare DUMICHEN, *Photographische Resultate*, Atlas, Pl. 2 f.), rods perfectly similar to our terracotta are figured (see Figs. 5, 6, 7); they end in the head of a gryphon, a lion, and a dog, so a calf would be of the same class. They cannot according to these shapes have been used for drinking purposes; if the long rod were hollow it would be most inconvenient to drink from, and the object would need to be very large.

Now in the Cairo Museum there is a similar object made of wood (Fig. 8, 21 cm. long). It is a cylinder ending in a ram's head, and very elaborately worked and ornamented. There is no hole in the head, so it cannot be a rhyton. The inner diameter of the cylinder is somewhat under 8 cm. The only explanation I can think of which would agree to the wooden object in Cairo, as well as the precious metal objects of Rameses III, would be a handle for a cup, or dish, or other such object. The clay model in my possession would, of course, have to be enlarged for such a use. But this is no objection, as the same thing is true for most ancient Egyptian models, and may be true even for the goat.

The terracotta model from its style and its history belongs to Ramesside times, like the pictures given by Prisse. The wooden cylinder in Cairo is said to have come from Thebes, and certainly belongs to the New Kingdom. As a curious fact connecting this wooden handle with the terracotta model, I may mention that the ornament round the edge of the cylinder occurs again just where the neck begins at the back of the head of the model, possibly as an indication of hair.

The form of the handle, it seems, survived down to Hellenistic times. Among the bronzes found in Egypt similar handles ending in rams' heads, or the heads of gryphons and eagles, are not unfrequent (e.g., EDGAR, *Greek Bronzes, Cairo*, Pls. VI, 27872, VIII, 27746-7, XIX, 27869; also *Arch. Aus.*, 1903, 148 b, p. 145). I am well aware, of course, that they are also found outside of Egypt, e.g., at Boscoreale. Still there seems to be at least a very strong predilection among the Egyptians for this kind of handle, as it occurs often in terracotta of Graeco-Roman times (PAGENSTECHE, *Griech-ägypt. Thongefässe*, Pl. XXXIX, 5).

Perhaps this predilection has historical reasons. The type, as we see, was familiar to the Egyptians since the New Kingdom, and possibly even earlier; at Kahun, with objects of the XIIth dynasty, Petrie found a spoon with a duck's head at the end of the handle (*Kahun*, VIII, 17, p. 29); and in prehistoric times we find animals of all kinds surmounting pins, combs, etc., or walking along the handle of a spoon. A well-known shape of a handle for some instrument ends in a hippopotamus figure or a human head (PETRIE, *Nagada*, Pls. LXI-LXIV; CAPART, *Primitive Art*, Figs. 46, 156). Probably some religious meaning was originally attached to such ornament; but by the time the handles of the New Kingdom were in use, such meaning, if ever it existed, had long become obsolete, and the animal head at the end of these handles had turned into a simple, but very appropriate, form of ornament.

It is not my intention, of course, to follow out in this short article all the history of handles ornamented with figures of animals or human beings. All I intend is to explain the meaning of the two objects here published for the first time, and to show how this type of handle probably survived into Hellenistic times, and possibly may be derived from prehistoric Egyptian types.

EGYPT IN AFRICA.

I.

Nature of the evidence.

Treatment of the body.

1. Mummifying.
2. Contracted burial.
3. Beheading the dead.
4. Passage for the spirit.
5. Vehicle for the spirit.
6. Restoration of ability to the corpse.
7. Recess graves.
8. Pole over grave.
9. Round-domed graves.
10. Domed pit tomb.
11. Sloping passage tomb.

Offerings for the dead.

12. Beer and flour offerings.
13. Cloth offering.
14. Offerings at the grave.
15. Killing the offerings.
16. Offering chamber above grave.
17. Drain to the east.
18. Men sacrificed at royal funeral.
19. Eldest son the family priest.
20. The funeral image.
21. Tall hats of officiants.
22. Offering chamber for the image.
23. The soul house.

THOUGH as a matter of mere geography the continental position of Egypt has always been obvious, yet as a matter of humanity it has always appeared to be aloof from the rest of the continent, in a way that perhaps no other country is detached from its natural connection. Egypt has always stood at a far higher level of civilisation than any other part of Africa, for the links with Syria, Crete, or Greece have been leading factors. So far have these connections prevailed that we need now to recall with care how largely the earliest stratum of Egyptian ideas has been at one with the rest of Africa. For this purpose we shall here quote from half-a-dozen different works, of original observers in the regions south of the Mediterranean, most of whom have written without any idea of the parallels which exist between their record and that of Egypt.

It may aid in considering the evidence of these various parallels, if we first clearly separate the different conclusions which might be drawn from them, and see to what end they point. Similarities between ancient Egypt and modern Africa may have resulted in three different ways. They may be: (1) due to a parallel development of thought without any material connection; such seems to have been the case in the ancestor worship and offerings of the Chinese and of the Egyptians respectively. Or (2) they may be due to direct descent, in Egypt and in Africa, from a common source. Or (3) may be the result of Africa borrowing from Egypt. In judging between these different causes, the main tests are that the independent and parallel development (1), may be disproved by such small details appearing as are unlikely to be devised independently. On the other hand, the historical conditions of Egypt are such, that the absence of much communication with Africa before the conquests of the XIIth and XVIIIth dynasties precludes (3), by the direct borrowing of details which only belong to the Old Kingdom and earlier, and which disappeared before the Nubian conquests of Egypt began.

Thus the nature of the evidence may leave only (2),—a direct descent from a common source,—as the possible explanation: but it is not to be expected that such evidence by exclusion should apply to even a majority of the cases which were due to common descent. On looking to the number of similarities to be dealt with—about sixty in all—we may set aside four or five as clearly due to late Egyptian influence of the Graeco-Roman period, and ten as being instances of beliefs which were general, and do not yield evidence either way. Of the forty-five resemblances in customs or products there are thirteen which are only explicable by (2), descent from a common source. Now, as we have pointed out, it is not to be expected in the nature of the evidence that we should generally be able to exclude parallel development, by using the test of early extinction of the resemblance in Egypt; as large a proportion as thirteen in forty-five is enough to show that direct descent is in general more likely than parallel development. Accordingly we shall be justified here, by the proportions of the evidence, in regarding only direct descent from a common source—which is so abundantly evident; such common source being in nearly all cases a primitive stock of population, and only rarely a later influence which passed through Egypt on its way into Africa.

Apart from the question of which mode of connection has produced these parallels, it must be remembered that the parallels are mainly of value to us as giving a living view of material which we only see dead in Egypt. We cannot ask an ancient Egyptian why he performs a ceremony; we can but very imperfectly imagine what were the ceremonies performed, by looking at the implements used, or at some chance representation of one particular stage. The modern African can be cross-examined, and every step of his actions recorded. Whether there be a direct copying of Egypt, a common descent, or even a parallel development, such living view of the case before us must be an invaluable guide to understanding the proceedings and ideas of the ancient ceremonies and beliefs which were similar to those of modern times.

The writers quoted here are: (W) *The Native Races of British Central Africa*, by A. WERNER, 1906; (L) *The Lower Niger and its Tribes*, by Major LEONARD, 1906; (F) *The Voice of Africa*, by LEO FROBENIUS, 1913; (S), *The Cult of the Nyakang*, by Dr. SELIGMANN, 1911; (D) Article *Dinka*, in "Encyc. Relig. and Ethics"; and (H) *Hamitic Problem in the Anglo-Egyptian Sudan* (*Jour. R. Anthropol. Soc.*), 1913, both by Dr. SELIGMANN; (J) *Racial and Tribal Migrations in Africa*, by Sir H. H. JOHNSTON (*Jour. R. Geog. Soc.*), 1913; (N) *At the back of the Black Man's Mind*, by R. E. DENNETT, 1906.

The material may best be classified under the following heads:—

Treatment of the body and burial; Offerings for the dead; and, in our next number, Royal functions; Beliefs; Material products; Late influence from Egypt.

Treatment of the body.

1. *Mummifying*.—This appears to be restricted now to important people, but the ceremony is evidently thought desirable where it can be performed; as the damp and heat of the tropics make it especially difficult to preserve flesh from decomposition, it is to be expected that so difficult a process should only be resorted to in special instances.

"The Babenda seem to make some attempt at mummifying the corpses of their chiefs, by rubbing the body all over with boiled maize, repeating the process till the whole skin becomes dry and shrivelled." (W., 163.)

"The elaborate manner of embalming, as it was practised by the ancient Egyptians, is not, of course, known; but in the case of kings and chiefs, . . . a rude method of embalming is carried out. Having first smeared the body with a decoction from certain plants . . . it is rubbed all over with camwood, and . . . a quantity of spirit . . . is poured over it . . . The favourite method, however, . . . is to smoke-dry the corpse." (L., 175-6.)

2. *Contracted burial.*—This is by no means peculiar to Africa, as it is well-known in pre-historic Europe; but it is still very usual from east to west of Africa. "The Yaos lay their dead with the faces to the east, and with the knees bent up to the chin." (W., 175.)

In Nigeria, "the corpse is reduced to the smallest possible compass by drawing its knees upwards and tying the arms to its sides, bound up in rolls of cloth and . . . so placed as to bring the face of the dead looking westwards." (F., 21.)

"The Galla of British East Africa bury in a contracted position, the corpse being tied in this posture, but inhumation is in the squatting, not the lying posture; . . . among the Nilotes . . . I believe by the Shilluk, and certainly by the Shish Dinka . . . the body is laid . . . on its right side with the knees and arms flexed, the head resting upon the right hand . . . Among the Akikuyu . . . burial, when it does occur, is on the side in a flexed position . . . The body is placed on its side, with the knees bent and drawn up. The head rests, if a man, on the palm of the right hand; if a woman, on the palm of the left, or it may be placed on the two hands placed together, palms facing . . . The inhabitants of the lacustrine kingdoms of Ankole and Unyoro also bury in the flexed position; the Bahima commit their rulers to the village manure heap, commoners are buried at the door of their huts, but in both classes the arms and legs are doubled up against the body, which lies on its side, and the head is bent forward. The Banyoro place the body on its left side, with legs and arms flexed, and the hands under the head." (H., 83-4.)

The regular attitude of the pre-historic Egyptians was moderately flexed, with the head to the south and face west. In the close of the pre-historic Age the body was often tightly bandaged together forcing the legs and arms parallel to the spine, and the head bent forward, so as to make an oval bundle. Both of these types we see to continue in Africa.

3. *Beheading the dead.*—"Never have I come across a people who so truly held in honour their begetters. And yet they are the most terrible barbarians with regard to the remains which we see in the bodies of our beloved ones. For it is in



TIGHTLY CONTRACTED BURIAL,
AGE OF MENA. TARKHAN.

our view horrible and repulsive to observe that they are able to cut off the heads of their dead parents or tear them from the corpses. It is so brutal and so cruel, that the mere thought of it revolts us. And yet religious feeling prompts these people to such an act as this. For they need these skulls. They need them, they cannot dispense with their possession; they are their most cherished family treasure. The poor defunct cannot return, but is for ever separated from his family which can never be increased and multiplied unless the skull be set up in the home itself, or in the family receptacle for funereal urns, and there receive its offering at the proper seasons. This is why they must needs obtain them, even if they can only do so by the perpetration of a barbarous custom. Then they enshrine it in their homes and before they themselves enjoy a morsel, they pray the deceased member to come back into the bosom of the family, and sacrifice a portion of every grain of corn and a drop of every liquid draught to it. Then, too, when a girl of the clan gives her hand in marriage to a young man, either her father or her mother takes the newly wedded to the skull; they offer it some food and drink, and fervently pray the dead to come back now and give his own family his power again. And the youthful wife takes of the grain which was laid in offering on the skull and consumes it. When, then, a child is granted to the young people, they hail it as their forebear come again to life." (F., 674.)

Among the pre-historic graves of Nagadeh, many instances were noted where the skull had been removed from the body, and replaced in the grave after some interval. That it had not merely been torn out by a plunderer was evident, as it sometimes contained a string of beads, in other cases it was set upright on a pile of stones, or set upright on a neat stack of all the long bones and ribs arranged in a heap. With such proofs of careful treatment, it is clear that we must credit many other instances of removal of the head as being due to the reverence of the relatives.

4. *Passage for the spirit.*—When burying those who died of smallpox, "A small reed is stuck into the side of the grave. Along this reed the disease will creep, and so escape from the body into the open air." (W., 289.) Similarly reeds were found placed in the corners of two perfect burials of the 1st dynasty at Tarkhan. This, in Egypt, was probably to allow a passage for the spirit; at Deshasheh, a small hole was cut in the rock from the tomb shaft to the place of offerings; and at Saqqareh, Mr. Quibell has found long flues constructed from the tomb out to the deposits of offerings on the upper level.

5. *Vehicle for the spirit.*—"At old Kapani's funeral, one of his men went into the grave after the body was laid in its place, and shot an arrow up into the air." (W., 175.) Similarly, in the Early Kingdom, the king's soul was believed to fly up to heaven on an ostrich plume, the *shed-shed*, which was doubtless let fly from the tomb, to be carried away in the wind.

6. *Restoration of ability to the corpse.*—"After the grave was dug (among the Atonga) and the body lowered into it, the chief undertaker, called 'the hyaena,' because he is not afraid to approach the dead, descended into the grave, and untied the fastening round the dead, exposing the face for a few minutes; whatever had been brought to be buried along with the dead was arranged about the corpse according to custom, and finally arranging the grave clothes and re-covering the face 'the hyaena' climbed out again. Prayers to the dead, conducted by 'the hyaena,' with responses from the other mourners, completed the obsequies." (W., 162.)

This is closely parallel to the service of the Egyptian *kher heb*, the chief reciter who undertook the ceremony. He "opened the mouth" of the dead that the corpse

might be able to revive, and he recited all the formulæ for its preservation and enjoyment of the functions of life. He specially consigned the dead to the care of the Jackal-god, Anubis, analogous to the helper of the dead being termed "the hyaena."

7. *Recess graves*.—"If a man is buried in his own house . . . a hole is first dug in the floor, then a niche is made in the side of the hole." (W., 165.) "The Yaos lay their dead with their faces to the east, and with the knees bent to the chin. This is the invariable rule, and so the niche which they make in the side of the grave to receive the corpse, is dug out on the west side of the pit." (W., 175.)

Recess graves only begin to appear in the later part of the pre-historic age in Egypt, and open pit graves continued in use at the same time and in all later periods more or less. The recess was at first but slight, and fenced across with a row of large jars, on the west side of the pit; it became deeper in the 1st dynasty, and from the IIIrd dynasty onward it was a distinct chamber walled off from the shaft. (*Tarkhan* I, xxv.)

8. *Pole over grave*.—"When the grave is deep enough, stakes are driven in all round the sides, and two forked poles planted in the bottom, to receive the ends of the carrying pole (from which the body is slung) when the body is lowered into the grave, so that it is suspended without touching the ground. The space is covered in with cross-bars on the top before filling in the earth. These precautions are intended to prevent witches from getting at the dead." (W., 159.)

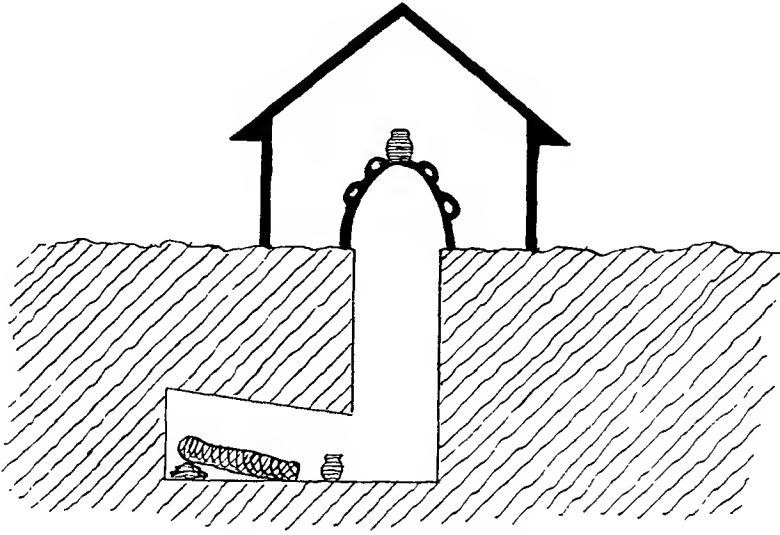
At Tarkhan, where the roofing of the graves was often preserved, the regular feature was a long massive pole across the oblong grave from end to end. It seemed strange that the roofing logs and sticks of a narrow grave should be supported by a large and valuable beam of wood, placed in the most wasteful position. It seems, by analogy, to have been the carrying pole for the coffin; like the offering vases, it could not be resumed by the living, but must be left as consecrated, and was placed from end to end of the grave to aid in the roofing of cross-bars. (*Tarkhan* I, xxiii.)

9. *Round-domed graves*.—In a cemetery near Blantyre, the graves "were not like ours, but nearly as broad as long, and looked more like rough garden-beds than anything else." Similarly, at Tarkhan, the complete tops of common graves were low-domed heaps, covered with a crust of gypsum and sand, or else by a low dome of brick and mud, circular, or nearly so. (*Tarkhan* I, xxiii.)

10. *Domed pit tomb*.—This is described as "a great conical, or dome-shaped structure of mud, on the top of which there was a vessel, which gave out a curiously hollow sound when I tapped on it. My companion pointed out a small aperture, not quite four feet high in the dome, which led into it on the western side. I held a candle into it, and saw that this conical dome had been built over a deep shaft . . . I reached the bottom at about thirteen or fourteen feet down, and discovered that other galleries, some five-and-a-half yards in length, and broader and higher towards their ends, had been driven towards the four quarters of the compass. The entire site, imposing enough of its kind, had been hewn out of the hard, tenacious fire-clay

"Graves of quite similar construction were formerly common in Nupe-land. In earlier times there were in that country huge burial caves. These have decayed, but old people alive to-day saw them and entered them when they were young. There are said to be still a few in the region of Kaba-Bunu, into which one can descend. I had heard of them in Ibadan, and often received reports on them afterwards. In Mokwa, too, they also knew of several of these burial caves. There was one of them on the site of the former ruler's palace, where the school building

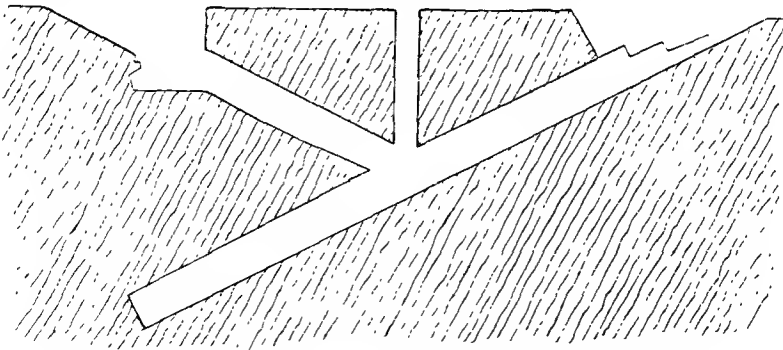
now stands. The hallowed spot is a few hundred yards to its rear. Sixty or seventy years ago the vault itself caved in. It was a subterranean cave. A circular hole gave access to it, and from this entrance lateral galleries, of about a man's height, and which were described as from nine to twelve feet in breadth, branched off in two directions." (F., 19-20.)



GRAVE OF A MOSSI-NABA NEAR JAKO.
From Frobenius, *Vöge of Africa*, Plate I.

This type of grave explains one of the most unusual of the Egyptian sepulchres, that of the mastaba of Zeser at Saqqareh (the Step-pyramid). There the main feature is an immense vertical circular shaft, covered over by the mastaba above, and branching into galleries below.

11. *The sloping passage tomb.*—This form is similar to the pyramid type, a long sloping passage leading down to the chamber, another passage of construction being blocked up on finishing the work. The antiquity of the idea of two sloping passages

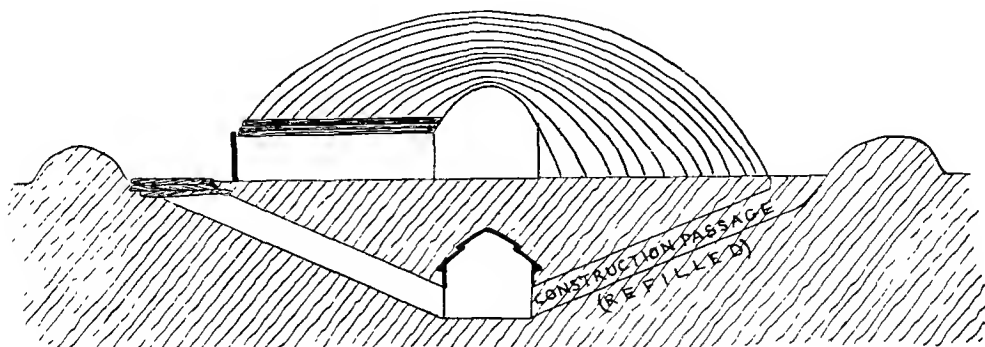


SECTION OF SO-CALLED TRIAL PASSAGES NEAR GREAT PYRAMID, GIZEH.

meeting is however shown by the "trial passages" near the Pyramid of Khufu; these differ from the passages in the Great Pyramid by having a vertical shaft at the junction, like the vertical tube put over the chamber in Nigeria (see section on Offerings).

"When a ruler was defunct in the pagan district of this ancient realm, a passage sloping downwards for about thirty feet from the east and west is cut

towards the hut in which the deceased is lying in state. These galleries are about six feet high, twelve yards long from their mouths to the point where they meet, and for a distance of four yards or so the walls and floor of their upper end are lined with planks of Borassus wood to prevent their falling in. But, first and foremost, a vaulted chamber is dug out exactly beneath the hut in which the dead ruler is lying-in-state; that is to say, at the coincidence of the eastern and western galleries, and its roof is built in the shape of a wicker basket, with horizontal rings and vertical ribs, and lined with straw and matting. Altogether about three hundred men are employed; one hundred and fifty of whom fell the timber, fifty plait and bind, and fifty more do the digging until the entire construction is complete."



SECTION OF A TUMULUS ON THE NIGER BEND.

From Frobenius, *Voie of Africa*, Plate II.

"The traveller frequently sees red mounds rising on the pale yellow sandy soil in the region of the Lower Senegal and Northern Houssa-land, between 13° and 18° N., of which the oddity, artificiality, and unnaturalness must, I fancy, strike all beholders."

"The measurement of these 'red heads' varies considerably. It rises from between sixteen and seventeen feet in height and sixty-six feet in basal diameter, to nearly seventy and two hundred and twenty-one and a-half feet in height and width respectively; but their average height is thirty-six feet, and their diameter one hundred and twenty feet."

... For the fact that these are royal tombs "we should only have to turn to the pages of the old Arab voyager, El Bekri, who visited these parts in 1050 A.D., to be convinced of its truth. This admirable explorer states that the natives of these parts buried their kings in great domed buildings beneath a roof of clay, and hid them beneath an earthen mound, from whose interior a passage led into the open air in this way; sacrifices and, in fact, human sacrifices and intoxicating liquors were offered to the dead through this channel."

"Thus everything goes to prove that once upon a time these tumuli were of different kinds:

"Firstly, a small type; a clay covering built over an underground mortuary hut.

"Secondly, an intermediate type; consisting of two spaces, the lower one being a grave under the solid earth above it, and the upper one a place of sacrifice under the earth, which was piled up above it for a roof; and

"Thirdly, extraordinarily large constructions for the reception of a great number of notabilities, besides royal personages, in chambers of some size according to regulations in those cases provided.

"I shall try to describe the manner in which one of these edifices was built : First of all, passages were dug under the earth and, at their coincidence, the gallery was enlarged, as the first sketch of a building with an oval-shaped dome. This dome was panelled and strengthened with wood from the *Borassus* palm. This domed underground vault contained the dead man and a good many things besides. As a rule, living victims accompanied the ruler to his grave and died there, of whom accounts agree that there may have been as many as four. The number is variously stated. The eastern hole was filled in, but the western one was sealed with boards and only opened yearly to receive fresh offerings. A second and very strong dome, to which a covered passage gave access from the west, was raised on the surface exactly over the roof of the grave chamber proper. The vaulted roof and passage were made of stout stems of *Borassus* palm, plastered with puddled clay, and the mound was piled high over the whole."

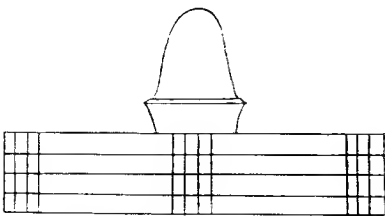
"It is clear, then, that the work was done layer by layer. Each one was sprinkled with bullock's blood, puddled and baked. As a matter of fact, the 'red-heads' in some places can be seen to be laminating, 'scaling' as a block of granite peels off in the tropics. Then a circular trench was drawn round the entire construction and connected with a purifying drain, which apparently ran eastwards. The entrance to the grave itself, which was opened but once a year for the insertion of the autumnal offering, was covered with planks laid horizontally. But on all other occasions the priests held intercourse with the dead in the upper chamber, approach to which could be gained by the covered way on the level ground." (F., 21-25.)

"In Old-Ojo the procedure is different. A trench was dug with passages eastwards and westwards, and a mound was thrown up over its central point. According to all descriptions, I may assume that this form of sepulture corresponds to that of the Binis of the Sougai, as set forth and illustrated in Chapter I" (the preceding account). (F., 184.)

The close resemblance to the principle of the Egyptian Royal Tombs hardly needs comment. There is the subterranean chamber, reached by a sloping passage; the piling up of layers of mud over it, like the pile of sand or brickwork over the early tombs in Egypt; and the temenos wall around it.

Offerings for the dead.

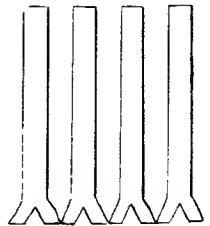
12. *Beer and flour offerings.*—"The offerings usually consist of native beer and maize flour . . . Usually the stones at the foot of the tree (a sacred one) support one or more pots of native beer made of millet, and there is either a little basket of



DISH OF FLOUR ON A MAT.
Hoteḥ, emblem of peace or satisfaction.



JAR OF BEER
USUALLY OFFERED.



STRIPS OF LINEN
USUALLY OFFERED.

flour or some is poured in a heap on the ground." (W., 52-3.) Beer was one of the principal offerings stated on early Egyptian steles, and the jug used for beer is

constantly figured among offerings. The flour offering was so essential that the pan piled up with flour, and placed on a mat, became the typical hieroglyph for an offering, *hetep*, and hence arose the derived meanings "to satisfy" and "to make peace."

13. *Cloth offering*.—"Sometimes also calico (is offered) . . . It is torn in strips lest it should be appropriated." (W., 52-3.) "In all cases of prophetic announcements . . . by the high priests or kings, white baft is always offered." (L., 456.) Likewise, in Egypt, beside the food offerings, linen cloth, in narrow strips, was always offered to the dead; this is represented in the early lists of offerings, and in later times by the kings, as at Deir el-Bahri and Abydos.

14. *Offerings at the grave*.—"It is customary to bury implements, weapons, insignia of office, ornaments and other articles, . . . wooden or clay images, in addition to the sacrificial victims, human and animal." (L., 175-7.) "The deceased's personal possessions are put into the grave with him before the earth is filled in." (W., 159.)

In the sepulchral chamber of the great royal tombs with sloping passages, "four candlesticks, each of them pointing to a quarter of the compass, are set up round the body, and, as soon as the departed ruler is laid to rest and all other necessary arrangements are made, the candles are lighted. Besides this, large and small vessels of Duo—that is, drink—and all kinds of food and grain are placed to hand in various receptacles. If it was a warrior chief who here found his last abode, his bows and arrows and fly-whisk were put into the grave. In the first place, the favourite wife of every ruler bore him company . . .

"An earthenware tube or pillar was placed in the funeral hut above the chamber in which the dead man had lain in state at first. It was erected on the exact spot beneath which his head had rested in the actual death chamber. Trenches were also cut to the north and south of the mortuary hut. These, however, did not open into the vault itself, but only served for the storage of extra food-stuffs in jugs and cups, and other articles in common use, such as tobacco pipes, ewers and even fire-wood. Such things were meant to please the dead and to refresh him when the supplies in the grave itself had run out. The wood would enable him to kindle a fire to warm himself in the cold season. All these preparations made, the eastern and western galleries were sealed on the inside with stout lattices, and the earth piled over them. The north and south galleries were also filled in." (F., 21-2.)

The parallel to the offerings made in Egyptian graves is complete. Not only are the deposits of food, of furniture, and of weapons alike, but also the providing of store rooms adjoining the burial, as in the Royal Tombs at Abydos.

15. *Killing the offerings*.—Near Blantyre "on the graves were laid broken sifting-baskets, handles of hoes, and pots, these last with a hole in the bottom of each." (W., 155.) "When all is finished, the women lay the offerings on the grave, also the deceased's water jar, in which a hole is made, and gourd drinking cup, which is broken." (W., 159.) Thus, in Egypt, offerings in tombs and graves are frequently found deliberately broken, even where buried quite out of sight and not liable to be stolen.

16. *Offering chamber above grave*.—See 11, *Sloping passage tomb*, where the upper chamber for receiving offerings is on the ground level, and was always accessible; like the funeral chapel of the Egyptian tombs.

17. *Drain to the east* from the offering chamber, see 11. This is like the drain to the east from the temple of Khufu's pyramid.

18. *Men sacrificed at royal funeral*, see II.—“As a rule, living victims accompanied the ruler to his grave and died there.” (F., 24.) “When a king dies many of his wives are thrown alive into the grave.” (H., 88.) At Abydos we found that the burials which surrounded King Qa were made before the brick chambers were hard, so that the walls squeezed down over them, and it seems that the servants were killed all together at the funeral. The human sacrifices appear to have been retained in the royal burials of the XVIIIth dynasty, and the *teknu* appears to have been a mock human sacrifice in private tombs of the same age.

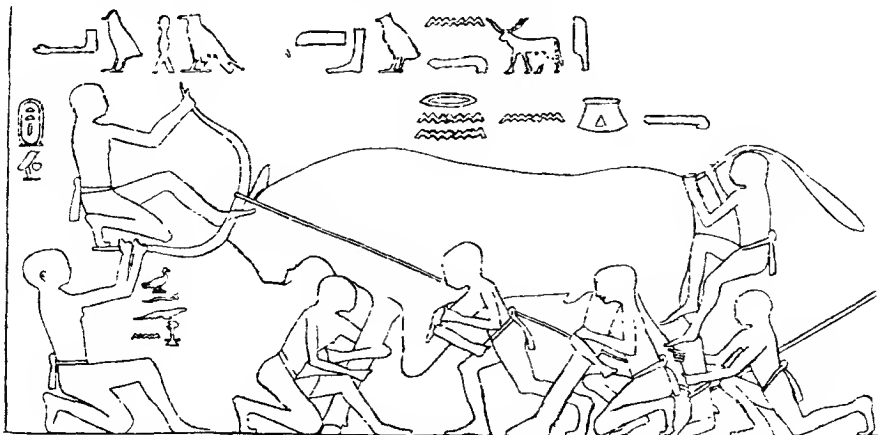


ELDEST SON OFFERING.
Temple of Abydos.

19. *Eldest son the family priest*.—“The person of the eldest son as priest to the family is sacred.” (L., 68.) At the funeral “the eldest son, or elected successor, . . . acts as master of the ceremonies, and performs the sacrifice . . . (along with) the sons of the deceased dressed up as priests.” (L., 163-4.) “The ancient custom is . . . the first-born son represents the family in the flesh, his father the family in the spirit . . . The first-born son is considered sacred and occupies during his father's lifetime the position of family and officiating priest. When household sacrifices are to be performed, he always officiates, especially on the death of his father, in cutting the throats of the victims.” (L., 395.)

So in Egypt the eldest son was the family priest, the *an-mut-f* or “pillar of his mother”; while all the sons joined in sacrificing the ox at the father's funeral, as shown at Deshasheh.

20. *The funeral image*.—“Everywhere among the Ibo, as well as among the other tribes, the same practices, therefore the same beliefs, as I have found, prevail as to . . . the necessity for the funeral sacrament in order to liberate the dormant soul from the clutch of the Death-god, and transport it from the regions of the



THE SONS SACRIFICING THE BULL AT THE FATHER'S FUNERAL.
DESHASHEH, VIth dynasty.

dead to the land of the living spirits. Among the New Calabar people the external or ceremonial aspect of this ancient rite is much more elaborate than it is among most of the other tribes . . . One year after the death of a chief, or consequential person, . . . his son . . . will secure the 'Duen-fubara,' *i.e.*, an image representing the head and shoulders of the late deceased, or his figure in a sitting posture. This, which is carved out of wood and painted with different dyes, in imitation of the face and head, surmounts a large wooden base or tray that, as a rule, is placed in a recess. It is also usual to place not more than two smaller images, one on either side, representing sons or near relations of the late deceased, who may have died subsequently to him. On this tray, and surrounding the heads, horns, glasses, pots, chairs, and as many articles of this description as can be crammed on to it, are arranged for the very evident use of the spirit father.

"In front of this pedestal three rudely made altars of mud are erected, with a hole in the middle of each, for the purpose of throwing the food and libations that are constantly offered to the presiding spirits, who, it is believed, eat and drink of them . . . These wooden images" are made by

the people of Fuchea, "a privilege the significance of which can only be measured and appreciated after a thorough comprehension of the ancestral creed and the indispensable importance of these sacred emblems as necessary embodiments for the household spirits. The day on which the image is finished, or rather delivered, is regarded as a public holiday . . . All the chiefs . . . accompany the 'Duen-fubara' from Fuchea to its destination. This is done at night, for custom forbids the landing of the sacred emblem by day. . . . On the eighth day a great sacrifice of goats and fowls is offered up by the late chief's household, as well as by all those intimate friends who hold his memory in remembrance. The eldest son, or elected successor, by virtue of his office acts as master of the ceremonies,

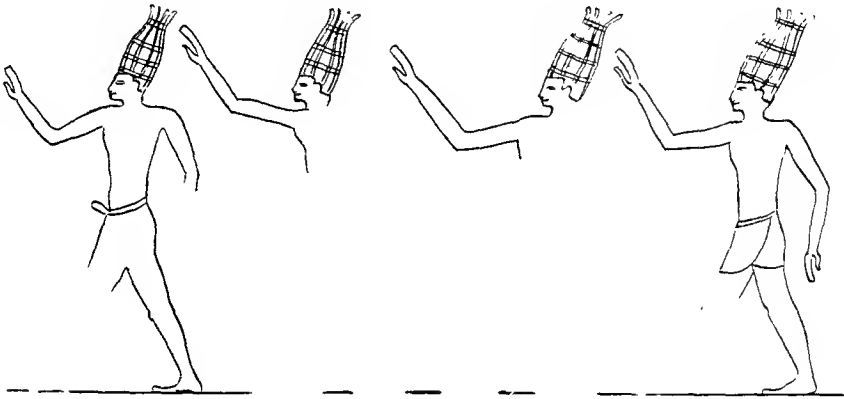


LIMESTONE HEAD, AS FOUND BURIED IN TOMBS OF THE
IVTH DYNASTY, IN PLACE OF A WHOLE FUNERAL STATUE.
University College, London.

and personally performs the sacrifice in the presence of the people and the 'Duen-fubara,' over which, as he cuts the neck of each separate victim, he throws and sprinkles the blood; and when this portion of the ceremony has been performed, the flesh is cut up and evenly distributed among all those who are in attendance.

"Following next in order, but prior to its removal to its own proper and final resting-place, the most interesting feature of the whole ceremony takes place."

21. *The tall straw hat of the officiants.*—"The sons of the deceased dressed up as priests, their faces marked all over with the sacred chalk, on their heads the large and exceedingly high native-made straw hats, and a fathom of white baft tied round their waists . . . proceed in a body to the chief's quarter, in which the 'Duen-fubara' has been deposited." (A mock fight follows.) "The invaders are allowed to take over the now blood-stained and consecrated image. This is done in a formal manner . . . A procession is then formed, and the emblem conveyed in state to the quarter which has been prepared for it . . . The spirit of the late liberated, in his present dual capacity of spiritual head and mediator or communicator, is absolutely indispensable to the household." (L., 162-4.)



DANCERS AT A FUNERAL WEARING TALL HATS OF STRAW OR RUSHES.
Tomb of XIIIth dynasty. *Ramessum*, Plate IX.

22. *The offering chamber for the image.*—"The New Calabar natives erect a new house over the remains of the late departed, the hall of which becomes an ancestral chapel in which is also deposited the 'Duen-fubara,' or image of the deceased, to whom offerings and petitions are weekly offered up."

"The Ibibio, however, erect large monuments in prominent places . . . Two small mud chambers with wooden doors that are always kept securely locked or fastened, are built at the sides for the sole use of the dead man's spirit."

"The Aro or Inoku too, bury their nobles in prominent places . . . and offerings of food and medicines are regularly placed in two holes which are made in front of the mound." (L., 182-3.) Compare the two holes for offering on Egyptian altars.

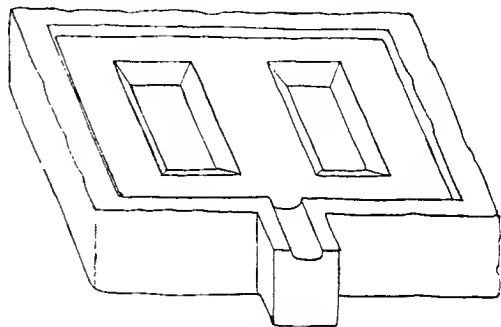
"On arrival at the mausoleum the 'Duen-fubara' is placed in the hall or outer room of a house which has been specially built for the purpose . . . the embryo house-chapel—now consecrated by the spiritual presence, which has been previously invoked and conjured into this special emblem—is daily swept and kept clean."

"There are three prominent landmarks . . . The first is that the ceremony is . . . the identical memorial service in honour of the dead which is common to one and all of these different tribes, only modified in this case with regard to human sacrifices, owing to the deterrent effect of civilised rule. The second is, . . . the

purely spiritual function of securing the passage of the soul from the land of death to the land of spirits . . . The third is that it is the consecration of the now released . . . and sanctified spirit, in his new position as spirit father and mediator of the household, a position which, apart from his own personality, entitles him to a daily adoration and a still more important weekly worship." (L., 162-5.)

"Where a new house is built over the remains (the mausoleum described above) certain things are removed (from the living house) to the new tenement, and placed along with the 'Duen-fubara' in the ancestral chapel." (L., 286.) The close parallel to the funereal figure placed in the ancestral chapel in Egypt is obvious. The image of the head alone is sometimes found in the IVth dynasty tombs, and the figure with those of the children is the regular feature of the tomb chapels, even down to the XIXth dynasty. The special tall headdress of the officiating sons, and their joint sacrifice of the funeral ox, are familiar. The tomb chapel, its altars for offering, and the worship there given to the ancestral image, are all so closely parallel in Egypt and Africa, that it would be reasonable to accept the account of the modern ceremonies as explaining to us the ancient ritual.

23. *The soul house*.—"Chipoka had been a person of importance, . . . a ceremony was to take place for propitiating the old chief's spirit . . . people were busied about a group of neat minia-



TYPICAL EGYPTIAN ALTAR WITH TWO HOLES
FOR THE OFFERINGS.

ture huts, made of grass, about two feet high. The roofs of these huts, which had been finished separately, were not yet put on, and I could see that a couple of earthen jars were sunk in the ground inside each. These jars were now filled with beer, and then the roof was lifted on . . . I have more than once seen these little spirit huts in villages." (W., 47-8.) "Of the things which the stranger can see for himself in passing through the villages the most noticeable are the little spirit houses . . . where sacrifices are presented from time to time." (W., 50.)

In the IXth-XIth dynasties in Egypt, the system of placing soul houses by the grave became common in some places. These model houses of baked pottery are of every degree, from the slightest shelters, up to two-story houses with many chambers, offerings and servants. How far such a system may have been prevalent at other periods we have no means of knowing. If made in perishable material, such soul houses as those of the modern Africans would entirely disappear.

W. M. FLINDERS PETRIE.

(*To be continued.*)

THE NEW LAW ON THE ANTIQUITIES OF EGYPT.

UNFORTUNATELY for archaeology, the legal questions of the claims of Governments on antiquities, and the complications of dealers and valuers, are continually interfering with the progress of science. Perhaps no other subject of research is hampered with equal restrictions, legal and social. The discoverer in chemistry, in geology, in astronomy, has no Government imposing licences and demanding half or the whole of the results of his labour. If the chemist or electrician makes a discovery of commercial value, he may have both his honours and his cash for it; but an archaeologist who made any personal profit would lose caste at once.

The entire prohibition of all export of antiquities in Turkey and Greece, only produces a permanent and well-organised, though hidden, route to every European museum. The bar on exportation from Italy is almost as effective in maintaining a systematic transport. In Egypt, since M. MASPERO began his rule in 1880, a more rational claim has prevailed. The Government has only barred the export of objects really needed for the Cairo Museum, and returned the purchase money to the owner. Excavation in private land was free; and in Government land permission was given to excavate on half shares with the Museum.

Last year a new codification of the law was issued, which is of much importance to both excavators and purchasers of antiquities. The new principle which is most surprising in this law is the claim of the Government to appropriate all antiquities under the soil, in private as well as public land. This seizure of all such property, formerly private, is unexampled in any other country; no precedent exists elsewhere for such claims. The practical effect of it is to stop all the very costly clearances of deep temple sites which are in private property. Hitherto the whole returns from such sites as Memphis and Heliopolis were a scanty reward for the difficult and expensive task of working under water. If only one half of the proceeds may be received, all such work is arrested.

In the beginning of the new law it is stated that the penalties laid down only apply to persons of Egyptian or Turkish nationality. The immediate result has been the transfer of dealing, really or nominally, to foreigners. Two of the best-known dealers from the Pyramids now have a prominent shop in Cairo with an Italian name over the door. The effect of a stringent law, only applicable to natives, will be to put the whole of the dealing in the hands of Greeks, Italians, and others; and to throw all native dealers into foreign partnerships. A nominal partnership will confer immunity from the law on any native, as he can then plead agency, the property being foreign. This is altogether an unsatisfactory state of affairs.

The definitions of antiquities are of the most sweeping kind; they include all manifestations and products of arts, sciences, literatures, religions, manners and industries, of all ages down to Coptic. This definition is expanded in detail to cover not only all it might be supposed to include, but also scattered blocks or bricks, chips of stone, sand, chips of pottery, and earth from towns (*sebakh*). But the law allows that objects already in private collections, or subsequently shared with the discoverers by the Government, may be sold.

The Government is entitled to expropriate any land containing antiquities, on paying a valuation, and ten per cent. over. Any discoverer of a fixed monument is bound to inform the department, and wait six weeks to know if it is claimed.

Any portable object, accidentally found, must be given up within six days, the finder to receive half the value. If not settled by consent, this half will be settled by the Department arranging two halves, and giving the finder the choice. Or if the Department requires to keep more, then it may name a value, and, if accepted, it will then pay half to the finder; or, if not accepted, the finder must name a value, and the Department will pay half and keep the objects, or require the finder to pay half and take the objects. This procedure also applies to all discoveries made by scientific excavators.

For dealers, a permit is requisite. Every dealer must keep a day book with entry of every object over £5 in value, with all details of dimensions, material, colour, etc.; the purchaser's name is to be filled in, and every page of the register to be sealed by the Inspector of Antiquities. Nothing may be sold outside of the shop licensed, or carried about without an authorisation of the Department. The Inspector may, by day or night, raid every place belonging to a dealer, to verify his stock and register. All of this seems to have been devised without reference to practical conditions.

Regular excavations must be sanctioned by the Minister of Public Works, on the proposal of the Director, after acceptance by the Committee of Egyptology. Temporary searches for less than a month may be sanctioned by the Director. Permission will only be granted to *savants* delegated by public bodies, or to private persons who may present sufficient guarantees. This is a wide term, which has already included native dealers and other most unsatisfactory diggers. Only two sites may be held by the representatives of one body: a proviso which is already neglected. Every permit must be worked for at least two months in each season, on one or both of the sites.

Taking wet squeezes, or any other damaging process, is prohibited; but no bar is laid on tracing or dry squeezes. Many formal and minor regulations are also laid down; but those quoted here will suffice to show the main points where a purchaser or an intending excavator will come in touch with the law.


W. M. F. P.

PERIODICALS.




Zeitschrift für Aegyptische Sprache, 50 Band. 1912.

(Continued from p. 83.)



SPIEGELBERG, WILHELM.—*Demotische Inschrift auf einem Sargbrett*. (1 illustration.) The inscription, which is of the second half of the Ptolemaic Period, gives several names by which the genealogy of the owner of the coffin can be constructed.



SPIEGELBERG, WILHELM.—*Ein Sargbrett mit hieroglyphisch-demotischer Inschrift*. (1 illustration.) The importance of this inscription is that the name  is given in the demotic Πᾱνᾱ-*nekhter* or Πανεχάρης, "He of the Power." The figure which is usually the determinative of a demon is here read *nekht*, "Power."



SPIEGELBERG, WILHELM.—*Eine Weihinschrift an Amenophis, den Sohn des Paapis*. (2 illustrations.) The corner of an offering table of dark granite. On the front edge is the demotic inscription: "Amenhotep, son of Hapi, give life to"

SPIEGELBERG, WILHELM. *Χεσεβαινον*. In an ostrakon published by Wilcken there is mention of an oath sworn in a temple called *Χεσεβαινον*, i.e., the temple of a god *Χεσεβαι*. Wilcken recognised in this word the name of the god Khons and suggested that the remainder of the name was *nb Ha*. Revillout has published a demotic text in which the name *Ptah neb Ha* is found; the demotic shows that the title was in hieroglyphs  *nb oḥou*, "Lord of Time," a title applied naturally to the moon-god Thoth, and his Theban form of Khons. *Χεσ-* then is the name of Khons with elision of the *n* before *s*, of which there are several examples known. The *n* of *nb* is also elided as in -*αρβεσχωις* *Hr-nb-sekhem*. The whole name *Χεσεβαι* is therefore   "Khonsu, Lord of Time."


GARDINER, ALAN H.—*The Stele of Bilgai*. (1 illustration.) This stele presents many points of interest. It records the endowment of a chapel and a house dedicated to the Amon of Usermaresetepnre. The chapel appears to have been founded by a queen whose name has been carefully erased; the feminine pronouns and the feminine endings have also been effaced. The name of a Pharaoh, too, has been intentionally destroyed. As the date is of the Ramesside Period and obviously later than Rameses II, the evidence points to the queen being Ta-useret, as she is the only queen of this era who was sufficiently involved in dynastic feuds for her name to be erased by her successors. The endowment was placed under the charge of "the Commander of the Fortress of the Sea, whosoever he may be"; a curse is pronounced upon this official should he fail in his duties, and a blessing invoked upon him should he fulfil them. "The language of the stele is the mixture of the literary and the spoken dialects usual on Ramesside monuments."















genealogy in the grave of Kha-f-Snefru at Gizeh— —the  is a peculiar

writing for  |  "their son," which shows that Snefru married his own eldest daughter. In consequence of the protest which this opinion has provoked, Prof. Sethe here recapitulates his statement, and brings forward further proofs. The tomb of the father of Kha-f-Snefru lies beside the tomb of Kha-f-Snefru himself, and undoubtedly belongs to the same Nefer-maat who was the son of Snefru and Nefert-kau. The objection, that Nefer-maat was the son of Cheops and not of Snefru, cannot be admitted owing to the fact that Cheops is so seldom mentioned in the family of Kha-f-Snefru as to be practically omitted, while Snefru is of great importance; it is altogether unthinkable that the grandfather should be honoured, while the king, beside whose pyramid the tomb was placed, should be passed over in silence. This Nefer-maat is probably the same as the prince of the same name whose tomb was at Medum, and who was undoubtedly the son of Snefru. The reason for the existence of the two tombs was probably due to the abandonment of the Medum tomb when Snefru abandoned his pyramid there. If, then, Nefer-maat was the son of Snefru by Snefru's marriage with his own daughter, it is obvious that such connections were not held in the same detestation as among the Hebrews, Greeks, Romans, and, later on, the Christians.

BURCHARDT, MAX.—*Zwei Bronzeschwerter aus Aegypten*. (1 plate, 2 illustrations.) Two swords in the Berlin Museum, both found in Egypt, and apparently of the same type, with parallel edges. One, which is complete, is of the type of sword found in North and Middle Europe, and dating to period M. III of the Bronze Age (*i.e.*, according to Montelius, 1400 to 1200 B.C.). The other is engraved on one side with the cartouches of Sety II, showing that both are of the same period. The true sword is not an Egyptian weapon; and it is remarkable that in the scenes both foreigners and Egyptians are armed with swords of Aegean and Mycenaean types, while the swords actually found in Egypt are of the North-European type. The only sword which was adopted by the Egyptians (so completely adopted that it became an emblem of victory) was the  or scimeter. The true sword is  in Egyptian, a feminine word which must be distinguished from the masculine form which means a knife.























VON BISSING, F. W.—*Die älteste Darstellung eines Skeletts.* (4 illustrations.) The author discusses the opinion of various authorities on the statement of Diodorus that a mummy was introduced at the feasts of the Egyptians, and suggests that the small figure in his collection may throw light on the subject. It is carved in light-brown wood, and is $1\frac{1}{3}$ inches long. It represents an unwrapped mummy, the bones being clearly though conventionally shown as if under the skin. The case, which contains the figure, is also of wood; it is in the form of an obelisk, pierced with a hole at the top, as if it were to be worn as an amulet suspended on the person. The date is of the late period, though hardly so late as the Greek era.


BLACKMAN, A. M.—*Remarks on an Incense Brazier depicted in Thuthetep's Tomb at El-Bersheh*. (13 illustrations.) The object, called a fan by Newberry (*El-Bersheh*, I, Pl. XV, p. 20), is here proved to be the cover of a censer. This was suggested in 1905 by Murray (*Saqqara Mastabas*, I, Pl. XXI, p. 22). The proofs brought forward in this paper are (1) the respective forms of fans and censer-lids as shown in the tombs, (2) the actual censers and lids found by Randall-MacIver at Buhen, one lid being pierced with holes to permit the escape of the smoke, (3) the hieroglyphic determinative  of the word *kop*, "to fumigate," (4) the modern practice, as experienced by both Lane and the author, of censuring a guest with a censer having a pierced cover.





BLACKMAN, A. M.—*The significance of Incense and Libations in Funerary and Temple Ritual*. Incense and the libations of water were offered in order to bring back to the corpse the fluid which had been dried out of it, and thus to re-vivify the dead. Quotations are given from the Pyramid Texts to show that the water offered to the dead is called    "moisture of the god," and      "exudations which issued from Osiris"; from a Middle Kingdom Text and the Ritual of Amon to show that incense is called    "dew of the god," and    "sweat of the god." The Pyramid Texts are also cited to prove that the god in question was Osiris, and that the water used was Nile water. The author notes in passing that libations and incense were offered to the gods in the same way as to the dead; he mentions also that offerings of incense were not always purificatory, but sometimes sacramental, whereby the offerer could enter into communion with his own *ka* and with the gods and their *kas*.



ROEDER, GÜNTHER.—*Namensunterschriften von Künstlern unter Tempelreliefs in Abu Simbel*. (2 illustrations.) The author points out that the short, often roughly carved, inscriptions below some of the scenes on the north-east, east, and north walls of the pillared hall at Abu Simbel, are the names of the artists of those scenes. Names of the artists of temples and royal tombs are hitherto quite unknown, and only occasionally in a private tomb has the artist represented himself, and even then in an unobtrusive manner; it is only at a late period, and far away in barbarous Nubia, that so great a liberty could be taken in a sanctuary.














NEWBERRY, PERCY E.—*The Tree of the Heracleopolite Nome*. (8 illustrations.) The emblem of the Heracleopolite Nome is a tree from which depends a long appendage, which is here shown to be a branch ending in a fruit or flower. From the drawing of a fruiting pomegranate tree in the tomb of Meryra at Tell el-Amarna, it is obvious that it is identical with the sacred tree of Heracleopolis.





SETHE, KURT.—*Der Name des Gottes Suchos*. The crocodile-god    , *Sobk*, becomes in Greek *Σουχος*, and in the construct-form *Σεκ-*, less often *Σοκ-*, *Συκ-*, or *Σκε-*. The elision of the *h*, which to us appears unusual, is well known in Egyptian, e.g.,                  





Kingdom by the spelling . The Greek form with *u* suggests that the name was originally *Sūbk*, with a long *ū*; the construct-form most in use, Σεκ-, must then be derived from a shortened form Σοκ-, or Συκ-. This, and other names of gods, show that the Coptic ω originated in *ū*.



















ROEDER, GÜNTHER.—*Der Name und das Tier des Gottes Set*. The name of this god is spelt , , , ; i.e., Setesh or Setekh in early times, abbreviated later to Sütē. These names show that only one god is meant, and that he is identical with Sutekh. The animal of Set is a fabulous one, with possibly a traditional reminiscence of the giraffe. It is still uncertain what is meant by the equation of Set with the giant Antaios. Sethe has proposed *entayye* as the name of the god of Antaiopolis, and von Bissing sees in Antaios as Set the representative of earth-born strength and barbarism.














EMBER, AARON.—*Notes on the Relation of Egyptian and Semitic*. A continuation of a previous paper on "Semito-Egyptian Sound-changes," in which the author "assumed that Egyptian was a Semitic language, but that, owing to numerous and extensive phonetic changes, and moreover to the influence of African non-Semitic languages, its relation to the other Semitic languages has to a great extent become obscured." Both in this and in the previous paper the author points out that one of the most striking of the sound-changes is the change of the Semitic R and L to  (Sem. *aleph*). In many words the Egyptian  = Sem. R has disappeared, though it re-appears in Coptic. The Egyptian name of the hippopotamus *db* is identical with the Assyrian *dabu* "pig." This identification shows the reason why the Egyptians called the hippopotamus-goddess *Rrt* "Sow" [and also why the animal which represents Set in the reliefs at Edfu is called a hippopotamus in the inscriptions and represented as a pig]. The paper concludes with a list of kindred Semito-Egyptian words: e.g., *sm* "herb, plant," Assy. *samnu* "plants"; *kku* "darkness," Assy. *knkku* "darkness"; *pkhr* "to surround, go around," *pkhru* "troop of soldiers," Assy. *pakharu* "to assemble," *pukhru* "troop of soldiers," *pakharu* "a potter."

















SETHE, K.—*Hand.* I. In the  or  of the Pyramid Texts, which becomes  or  in the plural and with suffixes, we find the original form of the Coptic **TOOT**-. From demotic and Coptic it appears that the absolute form is , **TOPE**, and the pronominal form . There is, however, this difficulty: how did the  obtain its value *d* if the word originally began with . It might be argued that in primitive times there was but the one sign for *d* and *z*, in the same way that there was but one sign, , for *n* and *m*, and one, , for *kh* and *sh*, but as in the Pyramid Texts the sign  is constantly used with the value *d*, this argument falls to the ground. Dr. Ember has, however, given the true explanation. There is in Egyptian a word , *udy*, "to lay, set, throw"; this is written in the Pyramid Texts and Old Kingdom generally, with a few fixed exceptions, without the , therefore, with the hand only. The























verb is connected with the Sem. *yad*, "hand" (Babyl. *idu*), especially with the idea "to lay, to give." The Egyptian possessed, like the Semitic, a word for "hand," which had originally the consonants *yd*. From this word the picture of the hand naturally obtained the value *d* after the *y* had lost its consonantal value. The loss or change of the consonantal *y* can be paralleled in several Egyptian words. This word for "hand" was lost early (as was the case with other words) and was replaced by the above-mentioned *sr*; but a denominative verb remained , "to set, to give." From this is derived another verb , "to throw down." From  comes, by metathesis, , "to give."

2. Erman, Brugsch, Max Müller and Burchardt are of opinion that  is not truly *d*, but corresponds to the Semitic , and Meyer says that "die dentale Media dem Aegyptischen von Anfang an fremd gewesen sei." It is quite true that, from the New Kingdom on, the Egyptians had neither *d* nor *g*. But this was not the case originally; it is certain that in early times, Egyptian possessed both *d* and *g* like other Semitic languages. The change appears to have taken place between the Old Kingdom and the Middle Kingdom, at the time when  became .

SETHE, K.—*Hier und dort*. The old Egyptian  , and the new Egyptian  or , are used with the meaning "here" and "there." Spiegelberg was the first to recognise the Coptic **TAI** "here," in . The Coptic word is also connected with the demonstrative **TAI**, **TH**, "this, that"; but as in Boheiric the **T** in this word is not aspirated, it is certainly derived from an original . The Boheiric also shows that the **I** in **TAI** is derived not from , but from  or ; for according to the laws of phonetics the short vowel *ä* of Boheiric becomes **H** before , while it holds its position before  or . The element , with the sounds **AI** and **H**, which our word has in common with the demonstrative pronouns, represents a special word with the meaning "here" or "there," when compounded with an adverbial sign . The earlier word  belongs exclusively to the Middle Kingdom and to the hieroglyphic texts of the XVIIIth dynasty. Here it is obvious that  is used for , showing that the earlier and later words have the element  in common; and it is equally obvious that both words contain the sign for a hand or arm. Like every other language, Egyptian uses the hand or arm to express the side or direction [e.g., right-hand side].

ERMAN, ADOLF. *Die ägyptischen Ausdrücke für "noch nicht," "ehe."* The author gives a summary of his arguments and conclusions at the end of his paper. 1. The old form is   , "while he had not yet heard, before he heard." This form can be used absolutely. 2. In New Egyptian, the later negative  is used; and in order to show that the  is to be sounded, it is written . The particle  often precedes the negative. 3. Even in New Egyptian, the auxiliary  is used:     . From this the Coptic **ⲙⲡⲁⲧⲉⲣⲱⲩ** is derived.

SETHE, KURT.—*Zum Negativadjektiv.* The negative adjective , from which the Coptic ΔT - is derived, reads  , sometimes written  . Though Erman was the first to point this out, he has since changed and now transliterates it as *nicht*. This is due to a misreading of the Pyramid Texts, where in the sentence  , the  is causal, and the phrase should read "because there is not." The two neuter expressions  and , "that, which," are often used for "that" in indirect oration;    , "thou hast said in this thy letter *that* thou hast brought." But in a negative sentence   is used instead of *ntt* or *wnt*.

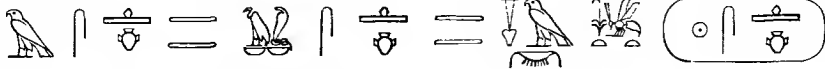
GARDINER, ALAN H.—*A late Egyptian use of the older absolute pronouns.* Like the late absolute pronoun  , and the rest, the early absolute pronouns can be used in a possessive sense. This occurs only in late Egyptian, when they are spelt   and  ; though when used in the ordinary way they keep the earlier spelling  and . This points to a probable difference in pronunciation. These pronouns are used: (1) After a substantive, when for some special reason neither the simple substantive nor the possessive adjective can be suitably employed. *E.g.*,          , "whenever he appears in any festival of *his*." (2) As predicate. In this case the subject follows and may be either a suffix or a substantive. *E.g.*,    , "Lord of valour, *to him belongs* victory."

BURCHARDT, MAX.—*Das Herz des Bata.* The idea of a heart outside the body is known in Scandinavian "marchen," where the giant's heart is inside an egg, which is inside a duck, which floats on a deep well in an inaccessible church. Should the duck be caught, it would let the egg fall into the fathomless depths. This was in order that no one should obtain possession of the heart, and thereby destroy the giant. In the case of Bata the heart is not only laid in the flower of a cedar-tree, but is disguised as a bunch of grapes. When the tree is cut down at the instigation of his faithless wife, Bata dies on the spot. A parallel for his resurrection is found in a Hottentot "marchen." In this story, a maiden is killed and eaten by a lion; the girl's relatives succeed in killing the lion, and, taking her heart out of the lion's body they place it in a calabash and pour milk over it, when the girl comes to life again. In the same way Bata is brought to life by placing his heart in a cup and pouring water over it.

Miscellaneous.

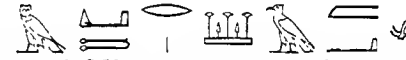
I. SPIEGELBERG, W.—Note on a tombstone of a military commander Antef, who accompanied an ancestor of the XIth dynasty on a campaign.




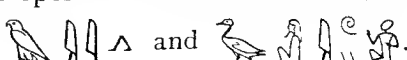
2. PIEPER, M.—Daressy has discovered a table of offerings with the name and



titles of . Lepsius, Sethe, and Steindorff have shown that it was



the custom, till the middle of the XIIth dynasty, to have the same name for the Horus and *Nebti* titles, after which, the custom was changed and never came into use again. Steindorff even states that there is no exception to this rule. That a king should change his name during his reign is not an unheard of event, and as no two kings ever took the same names for the throne- and personal-names it is evident that this offering-table belongs to Amenemhat I of the XIIth dynasty, and not to the Sethepabra of the XIIIth dynasty.





3. BURCHARDT, MAX.—In the trial of the tomb robbers, two tombs are mentioned, one of Seqenen-Ra Ta-āa, the other of Seqenen-Ra Ta-āa-āa, whose tomb is expressly said to be on the north of King Ta-āa. There are in fact said to be three kings Seqenen-Ra, who are distinguished from one another by the addition of āa and qen to the personal name Ta-āa; but except for the notice in the Abbott Papyrus there would be no difficulty in equating these kings. There would appear to have been two graves in which the royal name Seqenen-Ra Ta-āa occurred; one being that of the king. That it was possible to mistake the tomb of a noble for that of a king owing to the occurrence of the royal name, is seen in the inscriptions of the scribes who visited the tomb of Khnumhotep at Beni Hasan "in order to see the temple of King Khufu." As also there is no known example of two kings having the same throne- and personal-names, the conclusion is inevitable that there is only one king Seqenen-Ra, not three.









4. BURCHARDT, MAX.—A proper name, , published by Spiegelberg, shows the name of the god Mithra; the second part of the name is a form of the verb *šemu*, to hear. The whole name therefore means "Mithra has heard."

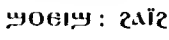

5. BURCHARDT, MAX.—A note on Egyptian proper names in Semitic form. The name  is translated by Spiegelberg as *happy-āa*. But a single  cannot be equivalent to , therefore the author proposes as a translation *The God N. comes*; the name being formed on the model of .

6. MÖLLER, G.—In ancient times the ordinals as well as the numerals used in dates are written horizontally, thus  , whereas the ordinary numerals are written vertically. It is possible now to prove that the date-numerals are ordinals, from the example in the Lamentations of Isis and Nephthys.

7. NEWBERRY, P. E.—King , mentioned in ll. 71, 72, of the Eloquent Peasant, is usually considered to be otherwise unknown. But this is doubtless  the Herakleopolitan king, whose name occurs on a weight found by Prof. Petrie at Tell Retabeh.

8. NEWBERRY, P. E.—The nome  , which occurs in the inscription of Methen is not in the Fayum, but is the same as the  of the Eastern Delta.  is a rare word for a crocodile occurring in New Egyptian. The capital of this nome was Tham at the end of the Wady Tumilat, and near Lake Timsah, the lake of crocodiles.

9. SPIEGELBERG, W.—Sethe's new reading of the word for the king of Upper Egypt,  *nī-swṯ*, explains a proper name which occurs on a funerary papyrus at Turin (Catal. No. 1854). This name is written either  or      . It would seem that the variant is an attempt to give the vocalisation of the words. When compared with the Babylonian equivalent of the Royal title *in-si-ib-ya*, the close connection of the two is very clear, with the exception of the interchange of **u** for **n**.

10. SPIEGELBERG, W.—Burchardt, in the last number of the *Zeitschrift*, has suggested that a word *ksrḥiḥ* in the Demotic Chronicle stands for the name Xerxes. This cannot be the case because the word is not in a cartouche, and the Demotic Chronicle invariably puts royal names in a cartouche. The first part of the word also is destroyed, and all that can be read with certainty is *ḥiḥ* = :  "Dust."

M. A. M.

REVIEWS.

Museum of Fine Arts Bulletin. April, 1914. No. 69. 18 pp., 26 figures. 10 cents. Boston.

This contains another of Dr. Reisner's welcome reports. At the Third Cataract he excavated a frontier post of the Egyptians, dating from the VIth dynasty to the Hyksos Age. A great brick fort and houses around it produced but little result; but the tombs of the Hyksos Age were rich and well preserved. They are distinguished by the pottery, which is of the very thin brilliant red and black ware, like that found in a grave of the XVIIth dynasty at Thebes (*Qurneh*, Pl. XXVIII). Rams' heads are buried in the graves, recalling the animal heads in the Pan-graves (*Diospolis*, Pl. XXXIX). Each great man lay on a bed which had carved bulls' legs, and with many slave burials in contracted position, around him in a circular pit. The people were broad headed and straight haired: they belong to some unrecorded invaders. The most interesting objects found are the bone and ivory inlays in the form of animals, and the similar figures of mica which were sewn on the dresses. The other objects accord with what was used in Egypt at the time.

Studies in Palaeopathology in Egypt.—By Dr. M. A. RUFFER. 14 pp., 6 plates. (*Journal of Pathology*, 1913.)

This paper describes the state of Coptic mummies from Antinoë. The teeth were remarkably bad, as are those of Roman mummies from Saqqareh, and the modern Alexandrian. Pyorrhoea was common, and large abscesses. Local outgrowth on the spine and other bones was frequent, and in the nose it sometimes choked the passage. Altogether the later period seems to have been more unhealthy than the earlier ages.

L'Égypte Monumentale et Pittoresque.—Par CAMILLE LAGIER. 8vo, 240 pp., 48 plates. 1914. (Vromant, Bruxelles.)

In this popular volume Père Lagier gives the travelling impressions of a scholar who already knew the meaning of all he saw, and he has made a pleasant outline of general interest for the French public. It is well illustrated with 48 excellent blocks of Dr. Capart's series, which are boldly printed on *both* sides of faced paper, with but little loss of quality. We can only regret that the author misrepresents all the Protestant Copts as being moved solely by the "dollar"; any knowledge of them would have shown that education was the cause of their religious attitude, which is of no possible benefit to their position.

Les Écritures Égyptiennes et l'Antiquité Classique. Par P. MARESTAING. 8vo, 143 pp. 7 frs. 50. 1913. (Geuthner, Paris.)

This is a collection of the references to Egyptian writing by the classical authors. The interest of the study lies in showing the extent to which the writing was understood in late times; but in no case does it aid in modern study of Egyptian.

Étude critique sur un Acte de Vente Immobilière.—H. SOTTAS. 8vo, 21 pp. 2 plates. 2 frs. 1913. (Geuthner, Paris.)

This is a discussion of the well-known deed of sale of a house found at Gizeh. The question is of the order of the columns, without greatly affecting the sense. This document of the IVth dynasty, and the decrees of the Vth and VIth show how gradual was the rise of fixed rules after the early period of confused writing, as on the panels of Hesy.

The Nubian Texts of the Christian Period.—By F. LL. GRIFFITH. 4to, 134 pp. 3 plates. 1913. Berlin. (*Abhandl. Konigl. Preuss. Akad.*)

This is a great work restoring to our knowledge the earlier form of the Nubian language, from documents dating between the eighth and eleventh centuries A.D. Mr. Griffith gives the complete texts of the five long documents, and many fragments that are known, with full translations, and grammar, and a vocabulary, so far as the materials permit. The interest is almost entirely philological at present, as the documents are much like the usual mediaeval Coptic literature. It is pleasant to observe the acknowledgments of Dr. Schafer's previous work, much of which, yet unpublished, he magnanimously supplied to the author with his well-known courtesy.


Catalogue des Antiquités Égyptiennes recueillies dans les fouilles de Koptos en 1910 et 1911.—Par ADOLPHE REINACH, 1913. (Musée Guimet de Lyon, 3 fr. 50.) 18mo, 132 pp., 37 figures.

This is a useful list of the antiquities of all periods from Koptos, now preserved at Lyons; it does not include the early decrees and other monuments kept at Cairo, nor others now in the Louvre. The most unusual objects are the Palmyrene steles found together in one house.

Égyptologie et Histoire des Religions.—Par ADOLPHE REINACH (*Revue de Synthèse Historiques*, XXVII, 1, 2), 1913. 8vo, 56 pp.

This is a detailed review of Prof. Foucart's recent book on the comparative method in the study of religion. We cannot venture to give here an abstract of a diffuse volume of 450 pages, commented on by 56 pages of review. Broadly speaking, M. Foucart regards the long historical development of religion in Egypt as more valuable to us than the far more detailed and precise knowledge of religions over a shorter period, or in modern times. He would rather explain the present position by the far slighter information that we can gather over remote ages. In this he attacks the position of Frazer and other writers of the anthropological school. M. Reinach, while recognising various lines of thought emphasised in the work, cannot at all agree with the general position. The whole matter is treated, on both sides, as a debate on opinions of others, instead of an argument on basic facts; it cannot be discussed profitably without rivalling the length of the works in question.

Ancient Egyptian and Greek Looms.—By H. LING ROTH. 41 pp., 39 figures and plates. 2s. 8d. (Bankfield Museum, Halifax.)

This is the first detailed study of Egyptian looms, and a treatment of the facts by a specialist was much needed. Every example of drawing has been utilised; and in some instances four or five different copies have been compared, and are republished here, from the best modern sources. The main conclusions are that the horizontal loom on the ground is the earlier in Egypt, the vertical loom not coming in till the XVIIIth dynasty, although it is the only loom in Greece and some other countries. A point still to be cleared up is the title of the overseer of the weaving at Beni Hasan. It is rendered by Prof. Newberry "Superintendent of canals" (*B.H.*, I, p. 48). This seems very unlikely; and the sign  looks as if it might be the loom with two end beams and threads between, the lines being straight in Wilkinson's copy. If so, it might read "Overseer of the loom ground," in accordance with the scene; and then the determinative of land would be very appropriate for the space covered by the flat looms. Various pieces of looms in museums are also illustrated here and discussed.

The Decay and Preservation of Antiquities.—By Prof. Dr. F. RATHGEN. 16 pp., 8 plates. 1s. (*The Museums Journal*, Nov., 1913.)

Very few curators understand the first stage of their business, the material care of the objects for which they are responsible. The most ghastly disasters stand unblushingly in our Museums: objects dropping to pieces, fading, and perishing. The commonest wreckage is caused by placing stones which contain salt against a wall with cement. The whole face is certain to perish, and yet this is done in museums from the highest to the lowest. Dr. Rathgen here gives much valuable advice, gathered in his museum workshops at Berlin. His methods are sound from a chemical and mechanical standpoint, but sometimes rather elaborate. Every curator should understand the use of paraffin wax as a preservative and strengthener; the simplest way of cleaning bronzes, by placing with some scrap zinc (or even iron nails) in vinegar or soda solution; and the extraction of salt by soaking, or, better, by laying a stone face down on wet sand and scraping the salt away as it comes out on the back. These simple ways will apply to the majority of cases. The latest improvement is to use non-flam. celluloid solution in place of the old oils and varnishes. When the applications of chemistry are rightly made the first necessity in the training of a curator, fewer regrettable incidents will occur in our museums.

Engineering of Antiquity and technical progress in arts and crafts.—By G. F. ZIMMER, A.M.Inst.C.E. 8vo, 89 pp. (Probsthain.)

This book draws its illustration mainly from Egyptian sources. With the technical knowledge of the author, such a work might have been made of the greatest value, but unfortunately his knowledge of the ancient world is inadequate. The first chapter is on the antiquity of iron. This begins with Tubal-Cain, mythical Chinese records of 2000 B.C., and Homer, quoted as authorities; and the age of iron in Egypt is settled by Herodotos saying that it was used in building the pyramids. Not a word is said about the earliest abundance of iron tools in Assyria, or the various instances of dated iron back to pre-historic times in Egypt. For the age of tin and bronze, there is nothing quoted later than Gardner Wilkinson, nearly eighty years ago. For tools, Belzoni, still further back, is the

only definite authority. An illustration called "Egyptians making glass" is repeated four times, but it shows the blowing of a furnace, and has nothing to do with glass. The devices for lifting stones are taken from Choisy, and are hopelessly futile, and without any evidence. Pottery is stated to have been "in use prior to the arrival of Joseph in Egypt." The author seems never to have heard of the long series of pre-historic pottery. It is truly unfortunate that such a book should be issued in the present day without any knowledge of the mass of information that has been acquired in the last fifty years.

Beitrage zur Kenntnis des Gewerbes im hellenistischen Aegypten.—Doctorial thesis of THEODOR REIL. 1913. 211 pp.

This valuable work is a handbook to the whole of the industrial details of the Greek papyri from Egypt. The first section is on the relation of industries to the State (by Monopolies, Taxes, and Customs), to the Temples, and to private enterprise. It would have been well to look a little beyond papyri, and to include such stone documents as the Red Sea customs tariff (*Koptos*, 27) and the Diocletian edict of prices, which are all-important for the subject.

The bulk of the work is a compilation of all references to each trade in order, and a tabular statement of all prices recorded in each kind of work:—Masons, builders, brickmakers, potters, glassworkers, jewellers, smiths, plumbers, carpenters, weavers, dyers, fullers, embroiderers, and tailors. The social condition of the trades is then discussed. Further are papyrus-workers, oil and salt duties, millers, bakers, butchers, fishmongers and brewers. Then comes the study of women workers and slave labour, and the labour unions in different ages. The writer is so saturated with his subject that he has forgotten to give a list of his many abbreviations; and even in a table of references to his various sources, he only gives them in the same form of initials. On referring to the brickmaking, the prices given do not include those published by Prof. Mahaffy, of 15 and 16 drachmas per myriad (*Petr.*, II, pp. 48, 51). The price of bricks is an excellent economic standard, as the material of Nile mud and sand is fairly constant, and there are no complications of trade. The early Ptolemaic drachma might be worth 6*d.*, so the lowest price, 10 drachmas = 5*s.*; later on a triens = 4*s.*, is the price of a myriad bricks. At the present day about 8*s.* is the lowest price. Thus we may say that gold and silver were in classical times worth the double of what they are now. A higher rate might have been expected, looking at the economic mining with modern machinery. This book covers untouched ground, and will be an invaluable guide for all studies on ancient economics and prices.

The Miraculous Birth of King Amon-hotep III, and other Egyptian Studies.—By COLIN CAMPBELL, D.D. 8vo, 204 pp., 57 figures. 1912. (Oliver and Boyd.)

Dr. Colin Campbell has taken up the useful function of expounding the monuments, a matter too often neglected by scholars who are only thinking of their own standpoint. The main subject begins with the belief in the divine descent of the kings; first the Horus descent, shown by the falcon; next the Ra ancestry of the Vth dynasty; then the Amen ancestry of the XVIIIth dynasty, which was also compatible with the kings being called child of Aah, of Tahuti, and of Ra. The scenes of the birth of Amenhotep III, in the temple of Luqsor, are described in detail, throughout the fourteen subjects, nearly all of which are shown in photographs. The same subject of divine birth occurred also in parts of the Ramesseum, now destroyed. There is next a description of the eight scenes of

coronation of Amenhotep III; and a description of the adoration of Mut. The Osirification of the king at the *sed* festival is closely on the lines already stated in *Researches in Sinai*, and in *Qurneh*.

It has long been a reproach that the most interesting series of processional sculptures on the wall of the colonnade at Luqsor have not been published or photographed. In this book there is a full account of the scenes, but unfortunately the photographs are too small to examine the figures, in most parts. The subject of a great procession of the god Amen from Karnak to Luqsor, seems to have been on the occasion of the great re-instatement of Amen by Tut-onkh-amen, though the work was later appropriated by Haremheb. It is full of interesting detail of a great religious festival and its collateral exhibitions, and it is greatly to be hoped that it will be all fully photographed on a large scale.

The tomb of Sen-nezem is described with fourteen views showing many interesting mythological figures. A curious oversight of the tomb painter was drawing a double door with the two hinges in the middle! Lastly, the tomb of Pashedu is described with three views.

NOTES AND NEWS.

THE interesting building which Prof. Naville has uncovered, and described in a paper here, is in several respects still an enigma. The exterior of it is yet quite unknown; the collateral buildings around it have yet to be disclosed, and their connection with it to be studied; the original entrance to it has to be found,—all of these further discoveries are needful to understanding the meaning of the large constructions now brought to light. The more pressing question is that of the depth and nature of the deep space around the central block of the hall. That this now reaches water at 14 feet below the floor, shows that originally the floor of the hall was at least 30 feet, or 35 feet, above water. That the water level has risen at Abydos, as in the rest of Egypt, is proved by the Ist dynasty temple being at the lowest known water level now. As it must have been dry originally, the water level must have risen at least the whole height of the present inundation changes. To know the depth of the space is therefore essential to understanding whether the building originally had water in it, or was dry.

The projecting ledge around the walls and the central block is well seen in the lower photograph. It appears cut square; and, if so originally (though now rounded in parts), we can hardly but see in this the sides of a floor that was once continuous, and has been extracted by the stone hunters. Or it may be that the building was never completed in this part. The stairways appear as if intended to reach a lower construction; they certainly never reached water as they now are. At their lower ends, opening into the deep trench, it may be that they continued in a structure of fine limestone which filled the trench with subterranean passages. It is evident that there is a great deal to be uncovered before we can see the meaning of this curious cyclopean building. We hope all those who have so successfully carried out this year's work will continue the future clearance of this site completely.

Prof. Steindorff has had a successful season at Anibeh in Nubia. He has opened a cemetery of the XIIth dynasty, with burials of Reisner's C group type. About 250 graves have been cleared, and much fine pottery was found. A fort of this age protected the settlement. There was also a town of the XVIIth dynasty, with a temple. We hope in our next number to give a full account from the excavator.

Lord Carnarvon's work at Thebes has—amongst other matters—been turned to the site of the tomb of Amenhotep I. The attribution of this large subterranean work is certain, as the vases with the king's name have been found in the passage by Mr. Carter.

At Antinoë, Mr. Johnson has succeeded in rescuing some more papyri, including the leaves of Theocritus lately described in the *Times*.

THE PORTRAITS.

THE series of seated figures of Senusert I is one of the most striking parts of the Cairo Museum. The highly finished work, and the perfect condition of these ten lifesize figures, fixes them in the memory. They were prepared for the offering court of the king's pyramid at Lisht; taken there, they were laid carefully on their sides awaiting the completion of the building. The king died too soon, Amenemhat II had other cares, and did not complete the temple of his father; thus the statues were left, perfect and unused, until uncovered twenty years ago. At first sight a visitor sees such differences of expression that the accuracy of the portraiture might be questioned; but if the fixed points, such as the profile, are carefully noted it will be seen that the ten statues are identical. All that varies in them is the natural fluctuation of a vigorous face in different moods, and it must be remembered that they have not received the inspiring touches of the artist's finish, they are but drafted out and not yet vitalised. The close resemblance to the portraits of Senusert elsewhere, such as at Abydos or Koptos, in contrast with the difference from other kings of this age, shows how really individual is the portraiture.

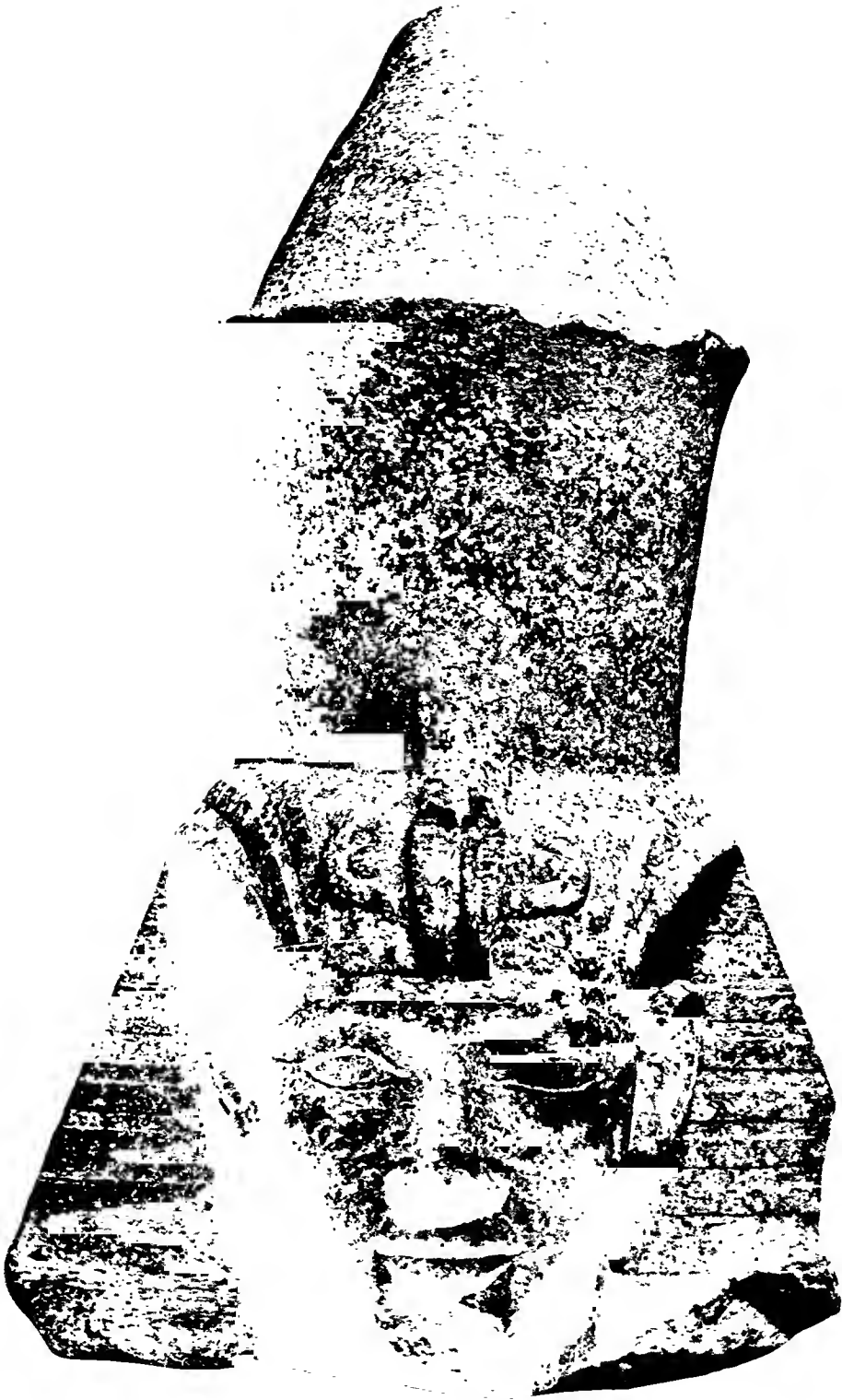


SENUSSERT II. Temple of Lahun.

The second portrait is the head of Senusert II found in the great pit of Karnak, broken from a statue of his in red granite. Unfortunately, the profile is not published, but the resemblance of type to that of the adjoining profile head from the temple of Lahun confirms the accuracy of both. Every statue should be published in at least three views, full face, profile in the plane of the lips, and a three-quarter view to show the facial curves. The double uraeus on the head should be noted; at this period a double function of the king was prominent, there are the shrines with two statues of Amenemhat III, and other instances, probably referring to the Southern and Northern dominion. The adjoining head, shown of full size here, is the only perfect profile from the king's pyramid temple. A head, larger, but with the nose injured, was found by me in 1889; it passed to Mr. Kennard's share of that excavation, and was sold at his sale on July 16, 1912.



SENUSSERT I, LIMESTONE STATUE, LISHT, CAIRO MUSEUM.



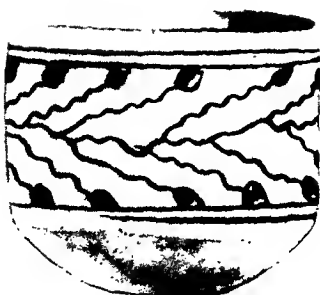
SENUSERT II, RED GRANITE HEAD, KARNAK, CAIRO MUSEUM.



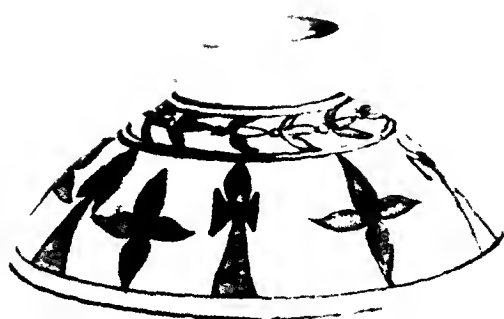
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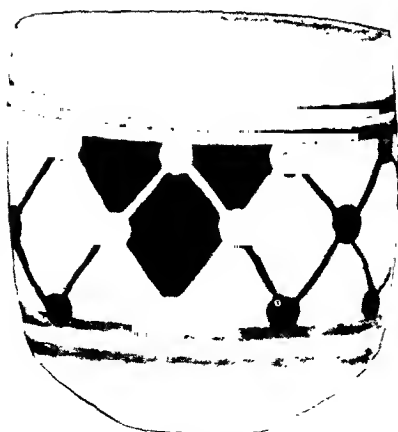
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NUBIAN BISCUIT-WARE.

ANCIENT EGYPT.

THE BISCUIT OR EGG-SHELL WARE OF THE SUDAN AND CHINA.

(*Frontispiece.*)

SOME of the most beautiful pottery ever made is that to which I have given the name of "biscuit-ware" and which was manufactured in the Sudan. Dr. MacIver's excavations in Nubia first made us acquainted with it; since then I have found fragments of it on various Meroitic sites in the Sudan—such as Kerma, and Kawa—and large quantities of it have been discovered by Prof. Garstang at Meroe. We now know that it is to Meroe that we must ascribe its origin. The kaolinic clay of which it is composed is found in the neighbourhood of that locality; the clay was first noticed by Major Rhodes and myself at Umm Ali, ten miles north of Meroe, from which most of the building stone of Meroe was brought.

The ware is very fine, hard, and thin; but it is not translucent, nor is it so resonant as Chinese porcelain. Otherwise it closely resembles the biscuit and "eggshell" china of the Far East. The paste is usually white, sometimes creamy, and is often covered with a thin red wash. A large proportion of the ware is painted in different colours. The designs are usually realistic, representing flowers, ivy or vine leaves, birds, and the like. But besides the polychrome pottery, there is also a good deal of stamped pottery, lotus-flowers, the Egyptian symbol of life, rosettes and similar designs being impressed upon the clay. The painted designs can be traced back to the Greek pottery of Naukratis; the stamped pottery seems to have been imitated from Aretino ware. The specimens found in Nubia are naturally provincial and much inferior to the pottery of the capital; the clay is comparatively poor, and the decoration betrays the hand of the imitator.

The period during which the ware was manufactured at Meroe extends from the third or second century B.C. to the third century A.D., and its northern limit is that of Sudanese influence in Nubia. In fact, it is not met with even in Northern Nubia, so that its northern limit may be described as the southern boundary of the Roman Empire.

The origin of the ware has, I believe, been discovered by Prof. Garstang. He has found fragments of vases and bowls similar to those afterwards made in the biscuit-ware, but consisting of ostrich egg-shell. Many of these fragments are painted in patterns which are the same as those of the polychrome biscuit-ware, and there can be no doubt that he is right in thinking that the egg-shell vessels were the primitive models afterwards imitated in clay. The Meroite potter discovered that the kaolinic clay occurring in his neighbourhood enabled him to reproduce the cups and bowls of egg-shell which had been previously in use.

Now there is only one other part of the world in which similar ware is found. This is China, the egg-shell porcelain which is now made in Japan being a modern imitation of the Chinese. Like the Sudanese, the Chinese potter had at his disposal an abundance of kaolinic clay. But that he was never led independently to take advantage of this is shown by the fact that all the pottery found in the early graves of China is thick and somewhat coarse. It was imitated, not from egg-shell, but from metal and lacquered wood.

Nevertheless, a period comes when "biscuit" or "egg-shell" china suddenly makes its appearance among the Chinese. Thus far nothing of the sort has been discovered with certainty in graves which are older than the T'ang period (A.D. 618-906), though I have seen a specimen which was said to have come from a grave of the Sui period (A.D. 581). The literary evidence, however, tends to show that "egg-shell" china must have originated in the period between the close of the later Han (A.D. 265) and the rise of the T'ang, though until the early cemeteries of China are scientifically excavated, the exact date of its first appearance cannot be accurately fixed.

Dr. Bushell tells us that "there are abundant references to porcelain in the voluminous literature of the T'ang dynasty" and that "the poets of the time liken their wine-cups to 'disks of thinnest ice.'" The Arab traveller Suliman in the ninth century (A.D. 851) describes the vases he had seen in China which were "as transparent as glass; water is seen through them";¹ and similarly thin, semi-lucent ware was actually imitated at Cairo in fayence some two centuries later.² At a later date (A.D. 955) the Chinese emperor issued a rescript ordering porcelain to be made "as thin as paper." This T'ang ware must have had an ancestry of some length.

It is a far cry from China to the Sudan, but during the past winter the distance has been unexpectedly bridged over. Among the documents brought back from Western China by the Pelliot expedition are some belonging to the Anterior Han dynasty (206 B.C.-A.D. 24) describing trading voyages to the West. The voyagers made their way to the coasts of Huang-chi or the Kingdom of Axum, and the journey occupied from ten to twelve months, as various ports were visited on the way. Between A.D. 1 and 6 a special embassy was sent by the Chinese emperor to the king of Axum with gifts and merchandise, and a request for the horn of a unicorn, which was duly despatched in the shape of a horn of the African rhinoceros.³ Among the articles of commerce carried by the Chinese to South-western Asia and the African coast, as we learn from Chau Ju-Kua,⁴ were pottery, and, at a later date, porcelain, and what the merchants and sailors were able to carry with them on the outward voyage could just as easily have been carried back to China on the homeward voyage.

The "biscuit-ware" of Meroe could thus have readily come to their knowledge. It would have been carried along the trade routes which passed from Meroe to the harbours of the Red Sea coast, and there it would have become known to the

¹ "Ils ont une terre excellente dont ils font des vases d'une délicatesse aussi grande que s'ils estoient de verre, et qui sont également transparents" (Renaudot's translation, p. 26).

² Nassiri Khosrau, writing in December, 1048, says (Schafer's translation, p. 151): "On fabrique à Misr de la faïence de toute espèce; elle est si fine et si diaphane que l'on voit à travers les parois d'un vase la main appliquée à l'extérieur. On fait des bols, des tasses, des assiettes et autres utensils. On les décore avec des couleurs qui sont analogues à celle de l'étoffe appelée bouqualemoun ('shot silk'); les nuances changent selon la position que l'on donne au vase."

³ A. Herrmann: *Zeitschrift der Berliner Gesellschaft für Erdkunde*, 1913.

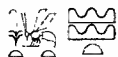
⁴ Fr. Hirth and W. W. Rockhill, St. Petersburg, 1912.






Chinese. The Chinese were already making the fine glazed pottery of the Han period, and using it in preference to the lacquer and metal vessels of an earlier date, and their potters would have recognised that they also possessed at home the same kaolinic clay as the potters of the Sudan. As they imitated the glazes and designs of the Hellenised cities of Central Asia with which they had become acquainted in the second century B.C., and as a few centuries later they imitated the glass and cloisonné of Byzantium, so, too, we may feel sure, they would have attempted to imitate the beautiful foreign ware which was brought from Africa. A bowl I obtained from a T'ang tomb is decorated with painted reliefs which are identical with a favourite floral design on the Meroitic ware (*e.g.*, Woolley and MacIver: *Karanóg* IV, Pl. 46, G 100; 59, G 546; 81, G 253; 84, G 621), and among the terra-cotta figurines in my possession from tombs of the pre-T'ang period are some which are as distinctively Hellenic in character as the figurines discovered by Prof. Petrie at Memphis. It is true that in the latter case the inspiration came from the West by the land-route across Central Asia, but it indicates how ready the Chinese were at the time to adopt and assimilate the elements of Western art. A head-rest from a T'ang tomb which I obtained in China has a floral pattern in red and yellow which possesses all the characteristics of the naturalistic designs of the Meroitic ware.

A. H. SAYCE.

KING UDY-MU (DEN) AND THE PALERMO STONE.

KING Udy-mu has long been known to the world under several different names, and it will be well to recount these at the outset, so as to clear up any confusion in the mind of the reader. At the time of the 1st dynasty the Egyptian kings bore two names, each of which was preceded by one or more titles, and Udy-mu's were



The first was originally read by Prof. Petrie (who discovered many contemporary monuments of this king at Abydos) "The Horus Den," but Sethe has shewn that the more probable reading is "The Horus Wdy-mw" (SETHE, *Beiträge zur ältesten Geschichte Ägyptens*, pp. 39-41). The second name—, to be read either KHASKHETI "the Foreigner," or SEMTI "the Desert man,"—is preceded by the double title "King of Upper and Lower Egypt," and curiously enough it is found in later Egyptian documents under several different forms. The reason for these different forms is obvious to anyone acquainted with hieratic writing; unless very carefully written the hieratic of  can easily be mistaken for the hieratic form of both  and . Now the scribe who drew up the Turin Papyrus List of Kings wrote the name  in hieratic thus:—

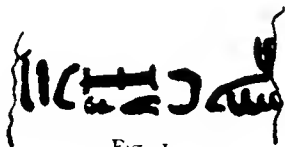
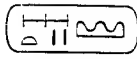
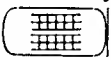

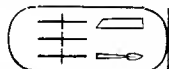






Fig. 1.

This would give the reading *Sp·ty* (*Sep·ti*) or *Hsp·ty* (*Hesepti*), but as Griffith has pointed out (*R.T.*, I, p. 38) a form found in the XVIIIth dynasty papyrus of Nu  (BUDGE, *Book of the Dead*, Text, p. 145) may show that this "was intended to represent *Sm·ty* (*Sem·ti*)."
The scribe of Sety I's List of Kings at Abydos gives us  *Sp·ty* (*Sep·ti*) or *Hsp·ty* (*Hesepti*) and other forms found in ancient documents are  (BRUGSCH, *Rec. de Mons.*, II, Pl. 85-107) and  (LEPSIUS, *Todtenbuch*, Pl. 53). The sign , it should be pointed out, has usually the value *kn*. By Manetho's time in the third century B.C. there were therefore at least two mistaken readings of the original name , and the Egyptian historian reading his hieroglyphs  and  quite correctly as *kn* (*ken*) and *hsp* (*hesp*) entered two separate kings' names, Kenkenes and Usaphais, in his list. Thus we have the following names of one and the same 1st dynasty king circulating in Egyptian literature at the present day:—

The Horus DEN (Petrie).


„ WDY-MW (Sethe).

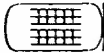
The King of Upper and Lower Egypt SETUI (Petrie).

„ „ „ SEMTI (Griffith, Hall).

„ „ „ KHASKHETI (Sethe).

„ „ „ HESEPTI (Sety's Abydos list).

KENKENES (Manetho from the form ).

USAPHAIS (Manetho from the form ).

In this article the forms Udy-mu and Khaskheti will be used.

The Palermo Stone takes its name from the Palermo Museum, where it is now preserved; it is a fragment of a large tablet inscribed in the Vth dynasty, recording the Annals of the kings of Egypt from Mena, the first king of the united country, down to the time when the monument was set up. The Annals are set out in great detail year by year, and it seems hardly possible that such accuracy was obtainable by tradition only, for a period so remote from the Vth dynasty as was the Ist dynasty. We can therefore but imagine that records of the chief events had been kept year by year, and that the scribes of the Vth dynasty had access to them. This would be quite in keeping with early custom, for we find in Babylonia, for instance, documents dated not by the year of the king's reign but by the chief event in that year. Thus under Bur-sin of Babylonia we find a document dated in the "year in which he destroyed the city Shashru" (cf. SCHÄFER, *Ein Bruchstück Altägyptischer Annalen*, printed in the *Abhandlungen der Königl. Preuss. Ak. d. Wissensch. zu Berlin*, 1902, p. 10). In making use of the Palermo Stone we are badly hampered by its fragmentary condition, which isolates long records of reigns to which we cannot attach the king's name. If by any means some of the events of one of these reigns can be identified, so that we can supply the missing name, then a considerable point will have been gained.

Now Schafer has pointed out that in other ancient documents we get references to the same or similar events as are recorded on the Palermo Stone (*ibid.*, p. 8). Hence if we can find any series of events thus recorded and in conjunction with the name of the king under whom they took place, and further can find on the Palermo Stone a group of similar events recorded under one reign, then it will not be too far a cry to assign the king given in the named set of records to the similar set which bears no royal name. Now, in the third row of the Palermo Stone we know we are dealing with a period between the pre-dynastic age and the IInd dynasty, because this row comes after the first, which gives the names of the kings of Lower Egypt when the kingdom was not yet united, and before the fourth, which names Netery-mu a king of the IInd dynasty. The third row, therefore, deals with the events of the Ist or early IInd dynasty, and it is among the named records of these dynasties that we must search for our parallels.

Fortunately such sets of named records of these dynasties have been found at the Royal Tombs of Abydos. They will therefore form a convenient *corpus* for the purpose of comparison. Fortunately again, the records of the third row are not easily to be confused with those of any other reign, as many of them only occur here. Hence there should be no difficulty in deciding to which of the sets of the named records of Abydos they conform, and in this way discovering the king whose annals form this third row of the Palermo Stone.

Sethe has suggested Miebis (Mer-pa-ba) as the name which is lacking, but finds difficulty in making the necessary length of the reign recorded on the third row of the Palermo Stone coincide with the twenty-six years given by Manetho to this king (SETHE, *Beitrag zur Ältesten Gesch. Ägyptens*, p. 48). Unfortunately we are unable to test the claims of Miebis by appealing to his Abydos documents, as those remaining to us are not of an annalistic nature, and so cannot be compared with the record of the Palermo Stone.

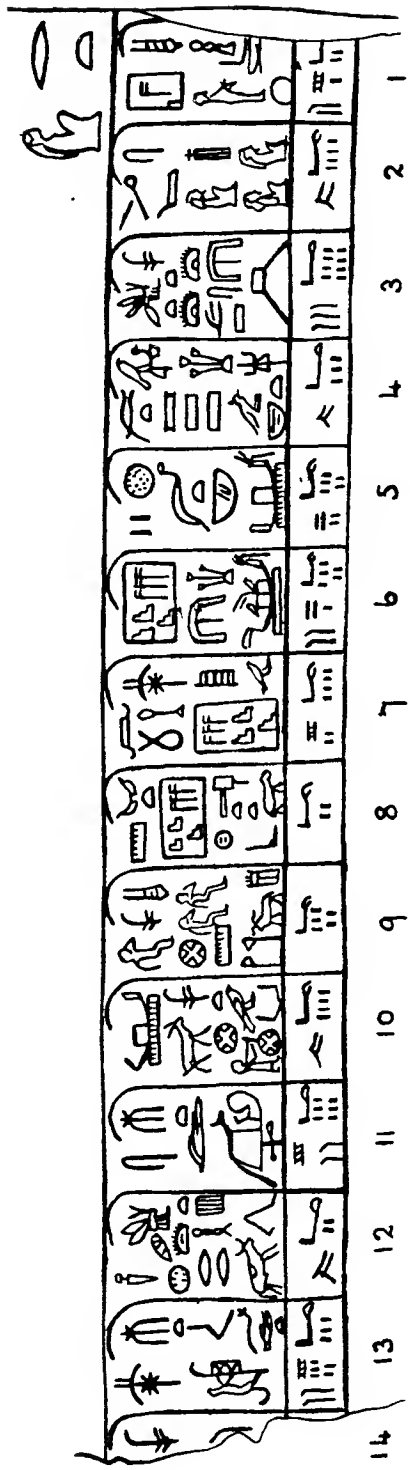


Fig. 2. PART OF THE THIRD ROW OF THE ANNALS, PALERMO STONE.

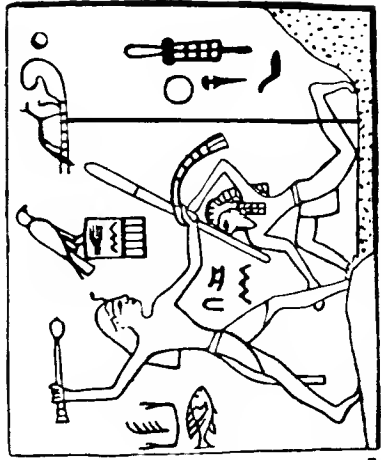


Fig. 3. FIRST SMITING OF THE EAST.
See Col. 2 of Annals.

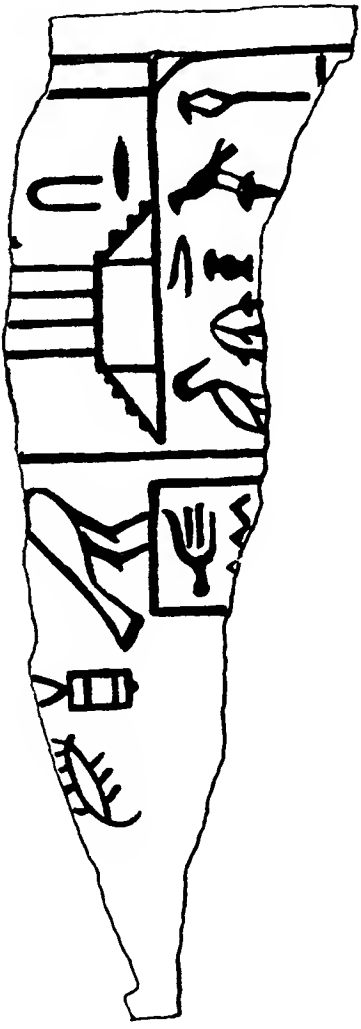


Fig. 4. SJED FESTIVAL.
See Col. 3.

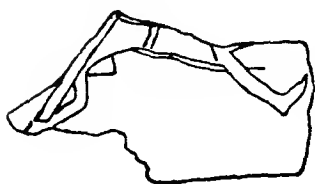
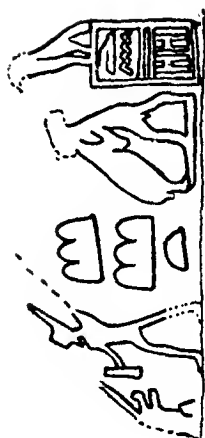


Fig. 8. HUNTING.
See Col. 8.



Figs. 6, 7. HUNTING THE HIPPOPOTAMUS.
See Col. 8.

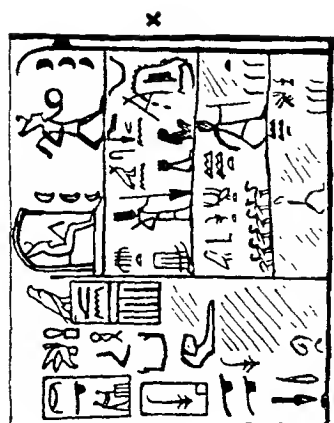
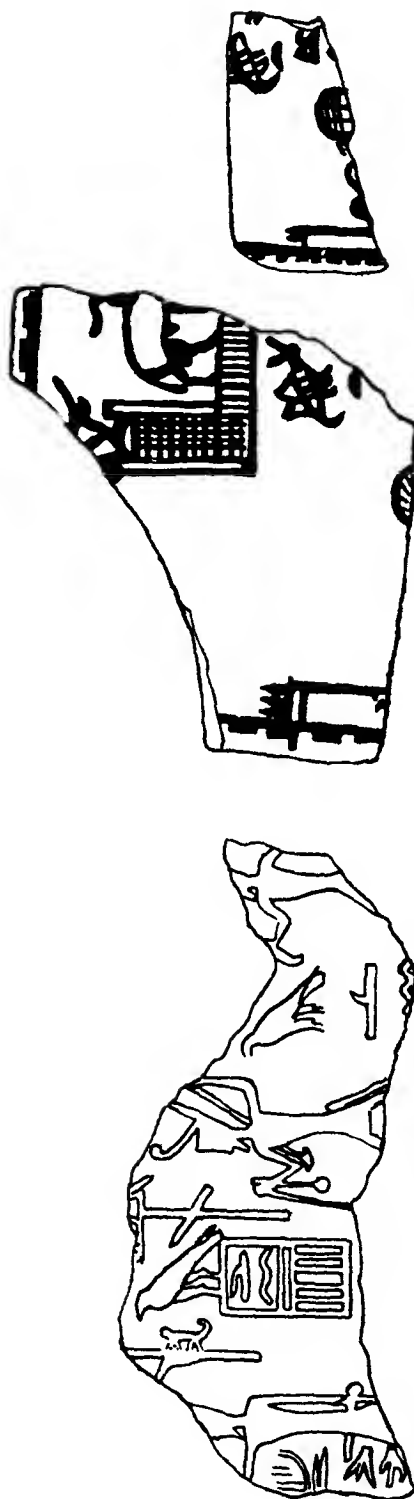


Fig. 5. OPENING THE GATE OF WATER.
See Col. 8.



Figs. 9. TEMPLE OF HERYSHEF.
See Col. 9.

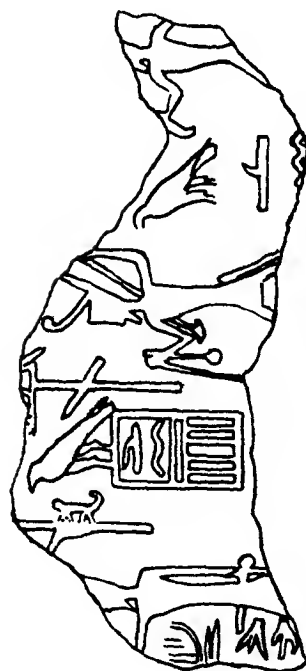


Fig. 10. STANDARDS OF SED AND MAFDET.
See Cols. 11 and 13.

EVENTS IN THE ANNALS COMPARED WITH TABLETS FROM ROYAL TOMBS.


The documents of another king—Udymu—however, compare in a marked degree with the records of this third row. These documents consist of inscribed tablets and clay sealings recovered from his tomb at Abydos, and for comparison here each is added to the record from this row of the Palermo Stone which it resembles. The numbers refer to those which we have placed below the inscription in Fig. 2.

2. *Palermo*. "Smiting of the Inu" (People of the Eastern desert and Sinai).
Abydos. Tablet of Udymu (SPIEGELBERG, *Ä.Z.*, XXXV, p. 8). "First Smiting of the East."
3. *Palermo*. "Appearance of the King of the South. Appearance of the King of the North. Sed festival."
Abydos. Fragment of a tablet of Udymu (PETRIE, *R.T.*, I, pl. xi, 5, 14) showing the raised pavilion of the Sed festival, and inscribed with the king's name.
8. *Palermo*. Opening of the lake of the house Isut-Neteru.
Abydos. Tablet of the Horus Udymu King of the South and Khaskheti (AMELINEAU, *Nouvelles fouilles*, 1897-8, xxxvii, 3; also PETRIE, *R.T.*, I, pl. xi, 14, 15) recording among other things the "opening of the door of the water?" and showing a hoe breaking away the earth of an embankment? Marked x in Fig. 5.
8. *Palermo*. Shooting of the hippopotamus.
Abydos. Sealings of the Horus Udymu (King of the South and North) Khaskheti (PETRIE, *R.T.*, II, pl. vii, 5, 6; *R.T.*, I, pl. xiv, 8) showing a hippopotamus attacking a man, and the harpooning of a crocodile. See also Fig. 8, a tablet of Udymu, and also Fig. 10.
9. *Palermo*. "Residence in Henen-nysut (Heracleopolis) and at the lake of the temple of Hery-she-f."
Abydos. Fragment of a tablet (PETRIE, *R.T.*, II, pl. vii, 8), showing a ram temple, probably that of the ram-headed god Hery-she-f, and naming a king of the South and North who from the fragment of the duplicate tablet figured alongside is probably Khaskheti.
11. *Palermo*. "Birth of the God Sed."
Abydos. Sealing of the Horus Udymu (PETRIE, *R.T.*, I, pl. xxxii, 39); showing besides the harpooning of some animal, a close connection between the king and two gods, one of whom is Sed, the jackal on a standard crossed by a mace.
13. *Palermo*. Birth of Seshat and Mafdet.
Abydos. Sealing of the Horus Udymu (PETRIE, *R.T.*, I, xxxii, 39; also *R.T.*, II, vii, 7, 10, see Fig. 10). Besides the above-named scenes King Udymu is also shown in connection with the standard of the goddess Mafdet.

Here, then, we find that out of a total of fourteen records of this row on the Palermo Stone, seven are found among the named annalistic monuments of Abydos which belong to Udymu. The Palermo Stone records much that does not appear on these monuments from Abydos, and of course there are other tablets of Udymu's—such for instance as *R.T.*, I, pl. xv, No. 18, *Abydos*, I, xi, 8, naming the city of Went—which find no parallel among the incomplete annals of the Stone. Thus it

is an inconclusive argument which Sethe brings (*Beiträge*, pp. 47, 48) that Usaphais (Udymu, Khaskheti) cannot be the king of this third row, because no mention of the worship of Horus is found here, whereas it is found on his tablets from Abydos. It therefore seems that the weight of evidence is at present greatly in favour of Udymu being the king whose annals are recorded in the third row of the Palermo Stone.

There is yet another fact which would point to the same conclusion, and again a further one which points away from Miebis, whom Sethe suggested as the king of this row, and, if it points to any one, it points towards Udymu. Both of these would thus form subsidiary points of evidence in favour of our thesis.

They are: (1) the use of the title , king of the South and North; (2) the probable length of thirty-two years for the reign recorded in this row.

Griffith has noted (*R.T.*, II, p. 52) that the title "king of the South and North" does not occur before Udymu, and in our illustrations we get instances of its use in his reign (Figs. 5, 9). Now the first time this double title appears on the Palermo Stone is in our third row, where it occurs once only, in No. 3 of Fig. 2. Afterwards it appears several times in the later reigns. This, then, is one subsidiary connection of the third row of the Palermo Stone with the reign of Udymu.


For the second point it must be remarked that Schafer (*Ein Bruchstück*, p. 21) has deduced a length of at least thirty-two years for this reign. This is arrived at by means of the knowledge, given us by the fourth row, that each king's name is written over the middle of the space allotted to his reign. The fourth line also shews us that besides the royal name some particulars are entered as well.

Now fortunately in the space above our third row allotted to these royal names and particulars, we have the end of such an entry (Fig. 2). This shews that the broken record begins within a year or two of the middle of the reign, and there are fourteen years registered before the record breaks off again. Hence there must have been at least fourteen more years recorded on the other half now lost. This gives twenty-eight years at the very least for the reign before us. On the analogy of the fourth row, five or six year spaces may well be allowed for the space under the name, of which two are already accounted for, one in each of the two sets of fourteen, leaving three or four to be added to the total of twenty-eight already arrived at, thus making $28 + 4 = 32$. There may also be one or two years to be added at either end of the row, as we do not know that the last year visible on the broken stone was the last year of the reign. Thus, then, the king of the third row cannot have reigned less than twenty-eight years, probably reigned thirty-two years, and may have reigned a little longer. Hence the length of reign indicated for this third row precludes Miebis (Mer-pa-ba) to whom Manetho only gives twenty-six years while Eratosthenes gives less still—nineteen. There is, however, one king the length of whose reign is in accordance with the probable length of the reign of this third row. This is Kenkenes—a name thrust in by Manetho along with that of Uenephes; but without emendation the forms of neither of them can be made to agree with any of the names of the Ist dynasty known either from the contemporary relics or yet from any of the Egyptian lists; and neither of them are known to Eratosthenes, though his list is too imperfect to have much weight.

Now it is well known that though Manetho may be a valuable guide for the general sum and extent of Egyptian history, yet he cannot be implicitly relied on for details (*vide* for instance his XVIIIth dynasty). Such being the state of affairs it is very fortunate that both of these difficult names are susceptible of some explanation. Maspero (*Rec. de Trav.*, XVII, p. 65) has shown that Uenephes is an

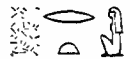

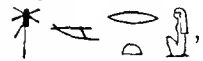
exact transcription of Unnefer (Osiris)—a name which is often written in a cartouche. In some way it has slipped in here. As to the other name it has already been shown that Kenkenes may quite possibly be a misreading of Khaskheti (Udymu) as is the name Usaphais. It is therefore perhaps significant that the number of years entered against Kenkenes' reign (Africanus 31, Eusebius 39) compare well with the number deducible from the Palermo Stone (32 or more). This then makes a further subsidiary piece of evidence that the third line of the Palermo Stone does not record the reign of Miebis (Mer-pa-ba), but probably records that of Udymu (Usaphais).

Thus the result of the foregoing is to shew that there is a considerable body of converging evidence respecting these records in :—

1. The recording on the third row of the Palermo Stone of a number of the same events as are found on the named records of Udymu.
2. The use of the double title , king of the South and North, which is not known to occur earlier than Udymu, and on the Palermo Stone is found for the first time on this third row, and often later.
3. The length of the reign recorded in this row agrees most closely with that of Kenkenes, which name is proved to be a corruption of Khaskheti (Udymu).

This evidence all converges to shew that Udymu (Khaskheti) is the king whose reign is recorded on the third row of the Palermo Stone.

Merneit or Meryt-Neit.

Having shewn to whom this row of Annals on the Palermo Stone is likely to refer, it becomes necessary to treat the three signs  above the row. To elucidate these it becomes necessary again to turn to the heading of the fourth row, which reads *Ntry-mw rn Nb . . .*, translated as "King Horus Neter-en (Netery-mu) the child of Nub" (SETHE in GARSTANG'S *Mahâsna and Bêt Khallâf*, p. 20; SCHÄFER, *Bruchstück*, p. 22). Here, then, Neter-y-mu is named with his mother, and such is entirely suitable to the final fragment of our inscription, which is shewn by the determinative  to be the remains of a woman's name; this woman should by this analogy be the mother of Udymu. Sethe (*Beiträge*, pp. 29, 47) has suggested the restoration of this name as , Meryt-Neit, and has brought evidence to shew that the well-known personage Merneit, as the name was at first read, was a woman and not a man. Meryt-Neit then, in all probability, must have been the mother of Udymu.

Meryt-Neit's position as mother of Udymu fits in well with the place assigned to the bearer of this name by Prof. Petrie (*R.T.*, II, p. viii) next before Udymu (Den-setui); it also fits with the probability that she died under Udymu (Usaphais) in that he provided her tomb equipment (SETHE, *Beiträge*, p. 30),—a most natural thing for a son to do. It is perhaps a duty more likely to fall on her son than on her husband, which would have been the case under Sethe's supposition that she was the wife of Usaphais (Udymu) and the mother of Miebis (Mer-pa-ba) (SETHE, *Beiträge*, p. 30). It remains a question whether Miebis (Mer-pa-ba) may have been also her son as well as Udymu; but it seems clear that Miebis cannot be the king of the third line of the Palermo Stone.

We now know two queens of the early Ist dynasty; Meryt-Neit the mother of Udy-mu, and the earlier queen Hotep, a princess of Sais and the wife of Narmer-Mena (NEWBERRY, *P.S.B.A.*, 1906, p. 69). We also know that sixteen out of seventy of the private stelae found round the tomb of Zer,—a predecessor of Udy-mu—bear names compounded with Neit, the well-known goddess of Sais in the Delta. From Naga ed-Dêr we find in the golden object inlaid with her symbol another piece of evidence of the importance of Neit during the Ist dynasty (REISNER, *Early Dynastic Cemeteries*, I, pl. 6, p. 139), and on a certain type of cylinder seals of the Ist dynasty bearing private names, no less than seventy-five per cent. of the names are compounded with the name of Neit (NEWBERRY, *Scarabs*, p. 51). It seems therefore that these southern kings with their capital in Upper Egypt were marrying princesses from this important city of Lower Egypt, the home of the Neit worshippers, and so ingratiating themselves with their newly acquired subjects in the North (NEWBERRY—GARSTANG, *Short History*, pp. 19, 26).

This group of Neit names implies that just at this time there was a strong colony of Neit-worshippers at the court of these southern kings composed of princesses and their retinue (NEWBERRY, *P.S.B.A.*, 1906, pp. 69, 70).

PERCY E. NEWBERRY.

G. A. WAINWRIGHT.

COPTIC STELE OF APA TELEMĒ.

THIS stele was found in Upper Egypt, and bought by Prof. Flinders Petrie in 1913. Now in the Institut Biblique, Rome. Copied by Mrs. Petrie.

† The Father, the Son, the Holy ‡ Spirit. Our father Michael, our § father Gabriel, our Lady mother † Mary, our father Adam, our ¶ mother Zoē, the four and twenty † elders, our fathers the † patriarchs, our fathers the † prophets, our fathers the apostles, † our fathers the martyrs, our † fathers the confessors, our † fathers the archbishops, † our fathers the bishops, our † fathers the great men, father [A] † pollo, father Anup, father † Phib, father Makare and his sons, † father Moses and his brethren, † father Jeremias, father Enoch, father † Joseph the , father Ammōni † of Pseteshons, father † Pollōni the martyr, † all the holy ones. Remember † Apa Telemē of Poureh, † who [rested] the fourth day † of

Notes.

L. 5. "Our mother Zoē." The name of Eve as given in the LXX.

L. 13. "The great men." This expression appears to apply to the names which follow.

LL. 14, 15. Apollo, Anup and Phib are the three saints of Bawit, a village on the west side of the river opposite Tell el-Amarna. It was the site of the ancient monastery founded by Apa Apollo. The remains of the monastery were first noted by Prof. Flinders Petrie (*Tell el-Amarna*, map), and were excavated later by M. Jean Clédat (*Mémoires de l'Institut Français*, XII, XIII). Apa Apollo as the founder of one of the great monasteries of Egypt is included in the invocations of saints which constantly occur in Coptic inscriptions; his name is usually followed by those of Apa Anup and Apa Phib. His day is celebrated on Mechir 5; Phib, who is called Abib in the Synaxarium, is commemorated on Paophi 25. From the fact that Apollo, Anup, and Phib head the list of saints and are therefore in the most prominent position, it seems likely that the stele came originally from Bawit.

L. 15. In this, as in the line immediately following, the two words, *ⲁⲛ ⲛⲉⲓ* "And his," are written as one, one *ⲛ* being omitted.

L. 16. Apa Moses was the local saint of Baliana. He founded a monastery in that district, but it is not certain whether at Baliana itself or at Abydos.

L. 17. Apa Jeremias and Apa Enoch are the local saints of Saqqara. The monastery of Jeremias, near the Step-pyramid, was first located by Sir Gaston Maspero, and excavated later by Mr. Quibell for the Department of Antiquities (*QUIBELL, Excavations at Saqqara*). Among the inscriptions found are three which refer to Jeremias as a person and not merely as a legendary saint; one is on a block of stone, "the seat of Apa Jeremias"; another is on a paving-stone in the floor of the "Refectory," containing the very interesting statement that "This is the spot on which our lord and father Apa Jeremias bowed himself, until he removed the sins of the people of the whole world"; the third gives the dates of his birth, of his tonsuring, of his ordination, and of his death.

Apa Enoch, who is usually mentioned in the lists with Apa Jeremias, is the Enoch of the Bible. He was commemorated about the end of Epiphi, the actual day appearing to vary.

ΠΙΩΤ ΠΩΗΡΕΤΤΕΤΤΝΑΕΤΟΥΑ
 ΑΡΤΕΝΕΙΩΤ ΜΙΧΑΗΛΤΕΝΕΙ
 ΩΤΓΑΒΡΙΗΛΤΕΝΧΟΙΣΜΜΑΔΥ
 ΜΑΡΙΑΤΕΝΕΙΩΤ ~~ΤΑ~~ ΔΑΜΤΕΝ ΜΑ
~~Υ~~ ~~Ζ~~ ΩΗΤ ~~Χ~~ ~~Ω~~ ΤΑΥΤΕΜΤΡΕΣ
 ΒΥΤΕΡΟΣ ΝΕΝΕΙΟΤΕΜΠΑΤΡΙ
 ΑΡΧΗΣ ΝΕΙΕΙΟΤΕΜΤΡΟΦΗ
 ΤΗΣ ΝΕΝΕΙΟΤΕΝΑΠΟCΤΟΛΟΣ
 ΝΕΝΕΙΟΤΕΜ ΜΑΡΤΥΡΟΣ ΝΕΝ
 ΕΙΟΤΕΝΖΟΜΟΛΟΓΙΤΗΣ ΝΕΝ
 ΕΙΟΤΕΝΑΡΧΗΕΤΤΙΚΟΠΟΣ BLANK
 ΝΕΝΕΙΟΤΕΝΕ ~~Ι~~ ~~Σ~~ ΚΟΠΟΣ ΝΕ N
 ΕΙΟΤΕΝΝΟΘΝ ~~Ω~~ ΜΕΑΤΑ BLANK
 ΠΟΛΛΩΑΤΑΔΑΝΟΥΤΤΑΤΑ
 ΦΙΒΑΤΑΜΑΚΑΡΕΜΝΕΥΩΗΡΕ
 ΑΤΑΜΩΥΧΗΣ ΜΝΕΥCΝΗΥΑ
 ΠΑΙΕΡΗΜΙΑCΑΤΤΑΕΝΩΧ ΑΤΑ
~~Γ~~ ~~Ο~~ ~~Σ~~ ~~Κ~~ ΠCΕΡΜΗ ΑΤΑΔΜΜΩ
 ΝΙΤΡΕΜΤCΕ BLANK ΤΕΩΟΝCΑΤΑ
 ΠΟΛΛΩΝΙΤΤΜΑΡΤΥΡΟΣ ΝΕ
 ΤΟΥΑΒΤΗΡΟΥΑΡΙΤΤΜΕΕΥΕΜ
 ΝΑΤΑΤΕΛΕΜ ~~Τ~~ ~~Ρ~~ ~~Ε~~ ~~Μ~~ ~~Τ~~ ~~Ρ~~ ~~Ο~~ ~~Υ~~ ~~Ρ~~ ~~Ε~~ ~~Σ~~
 ΝΤΑΙ ~~Ι~~ ~~Σ~~ ~~Ο~~ ~~Υ~~ ~~Υ~~ ~~Τ~~ ~~Ο~~ ~~Ο~~ ~~Υ~~
 Ν

L. 18. **ⲡⲉⲣⲱⲛ**. This title or epithet of Apa Joseph is one of which I have no knowledge.

L. 19. Pseteshons appears to be a place name. Near Bawit was a place called Terōtashans (ZOEGLA, 366) or Terōtnshoons (HALL, *Greek Texts*, p. 144); it would seem likely that Pseteshons, which has the same termination, would be in the same neighbourhood.

L. 22. **ⲁⲣⲓ ⲡⲱⲉⲣⲉ ⲛ̄** is the usual form. I would suggest that the sculptor has confused this formula with the other funerary formula **ⲁⲣⲓ ⲟⲩⲛⲟⲩⲛⲁ ⲡⲛ̄**.

The name Telemē is also found as Delemē (*cp.* CRUM., *Coptic MSS. from the Fayyum*. No. XXIII, ll. 10, 11).

Poureh appears to be a place name. **ⲟⲩⲣⲉⲗ**, a masculine word, means waste ground near buildings.

L. 23. The position of the small fragment, which is all that remains of the letter **ⲙ**, shows that the word was written **ⲛⲧⲁⲓⲉⲩⲟⲩⲛ̄**.

M. A. MURRAY.

EGYPT IN AFRICA.

*(Continued.)**Royal functions.*

24. The chief as priest.
25. The king killed before old age.
26. Indirect mention of king's death.
27. Sister marriage.
28. Honour of the royal placenta.
29. Importance of leopard's skin.
30. Potency of the ox tail.
31. Ensign of the saw fish.

Beliefs.

32. The mundane spirit world.
33. Every object has its spirit.
34. The ancestral spirit.
35. The roads of the future.
36. Twins human and animal.
37. Ram-headed gods.
38. The bull god.
39. Totemism and animal clans.
40. The sacred sycamore fig tree.
41. Red cattle sacrificed.
42. Animal skulls hung up.
43. Divination by objects thrown.

Material products.

44. Red and white pottery.
45. Red and black pottery.
46. Mud toys.
47. Wooden head-rests.
48. Wooden hoes.
49. Double process spinning.
50. Flat ground-loom.
51. Mosquito nets.
52. Harpoon.
53. Drag net.
54. Hand net.
55. Basket traps.
56. Ring snares.
57. Cone on the head.

Late Influence from Egypt.

58. Terracotta Nigerian heads.
59. The classical patterns.
60. Interwoven patterns.
61. Architectural style.

IN addition to the various authorities named in the previous article on this subject, there is to be added here (K) *On the backwaters of the Nile*, by A. L. KITCHING (1912).

Royal functions.

24. *The chief as priest.*—"Sometimes a man approaches his deceased relations on his own behalf; but, as a rule, it is the chief who prays and sacrifices on behalf of the village." (W., 49.) "The head man acts (in offering) on behalf of the village." (W., 53.) Similarly in Egypt all offerings were considered in theory to be made by the king, the formula being *nesut dy hetep*, "may the king give an offering"; and the figure of the king is sometimes represented making the offering to the deceased.

25. *The king killed before old age.* Among the Shilluks "the king must not be allowed to become ill or senile, lest with his diminishing vigour the cattle should sicken and fail to bear their increase, the crops should rot in the fields, and man, stricken with disease, should die in ever increasing numbers . . . Any *niaret* (child of the king) has the right to attempt to kill the king, and, if successful, to reign in

his stead It was said to be a point of honour for the *ret* (king) not to call the herdsmen to his assistance." (S., 221-2.) "Every Dinka high chief is killed in his old age, this being done at his own request with all ceremony and reverence . . . The Wawanga . . . also kill their king . . . The custom of king killing, in a somewhat modified form, is also found among the Banyoro ; . . as soon as the king felt unwell and thought he was about to die . . . his chief wife was allowed to visit him . . . he asked her for 'the cup' . . he drained it, and in a moment was dead." (H., 72-3.) On the Niger, "These Ogboni are the 'Elders,' the oldest members of the families held in the highest esteem, and pledged to work together by the most solemn sacrificial ties from which there is no release ; . . . while keeping a jealous eye on the even balance of prestige among themselves, they pull the strings which make the principal civic power, the Balé, dance like a marionette at their behest. They elect this Balé, give him their instructions, control him, keep him under the closest observation, and quietly remove him should he ever dream of undertaking anything on his own account without due regard to the interests and dignity of the Ogboni League. . . . They immediately send him an ominous token, and if he does not forthwith commit suicide on its receipt, the poor Balé is very soon poisoned. It is not so very long ago that every Balé, who had served his statutory two years of office, was murdered in conformity with the laws of a very ancient ritual." (F., 56-7.) "And if still further evidence should be thought necessary to prove the profundity of these people's religious life and habit of mind, I will say in addition that they still practise the pre-historic custom of the Ethiopians referred to by Pliny and Diodorus the Sicilian: they doom their kings to their death within a few years of their reign and do so because otherwise the earth would no longer yield the fruits upon which they depend in due season. The custom is dreadful and cruel." (F., 676.)

The greatest religious festival in Egypt was that of the *sed*, or termination of the king's earthly life, when he was assimilated to Osiris and became one with the god. Doubtless this was originally his earthly death, as in Africa ; but by appointing then his successor to marry the royal daughter, and inherit the kingdom, the Egyptian felt free to modify the custom, and after deification the king continued to reign till his natural decease.

26. *Indirect mention of the king's death.*—"Among the Efik and Ibibio, to announce the death of a king or chief either very suddenly, or too soon, is considered a great dishonour, especially in the case of a son, who must only be informed indirectly by an allusion or a hint. The body is preserved by dessication." (L., 170.)

This explains the passage in the tale of Sanehat, where the king's death is announced by saying that a hawk had flown to heaven.

27. *Sister marriage.*—"The Bahima, the Banyoro, and the Baganda, are all totemic and observe the ordinary rules of clan exogamy, yet the Bahima marry their sisters, . . . among the Banyoro . . . princes might cohabit with princesses. . . . The rule was for princes and princesses to live together . . . the Baganda . . . clan exogamy was strictly observed, except in the case of the ruling prince, who, on becoming king, was ceremonially married to one of his half sisters. . . . We thus reach the conclusion that brother-sister marriage was a widely spread early Hamitic institution. Nor were consanguineous marriages limited to the royal family, or even to the aristocracy, for the practice occurs among commoners in certain Galla tribes at the present day." (H., 59-61.) The Egyptian custom of sister-marriage was not only usual in the royal family but also generally ; so much so that a wife was commonly called a sister. In Ethiopia there is a long genealogy of the queens

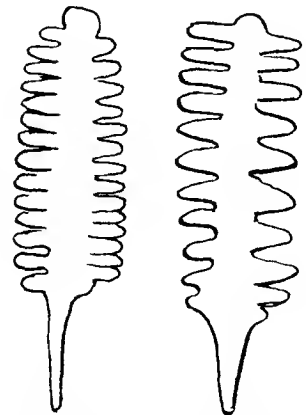
in maternal descent, each married to her brother. The custom was adopted as part of the royal system by the Ptolemies; and in the first century is alluded to as being general by Seneca(?) in the *Apocolocyntosis* (Ch. 8). "You may go half-way at Athens, the whole way at Alexandria," referring to half-sister marriage at one, and full-sister marriage at the other.

28. *Honour of the royal placenta*.—Among the Baganda "On the birth of a prince the umbilical cord is dried and preserved, placed in a pot which is made for its reception, and sealed up; the pot is wrapped in bark cloths and decorated with beads . . .; this is called 'the twin,' and has a house built for its abode . . . The umbilical cord of the king was decorated and treated as a person. Each new moon . . . it was carried in state . . . After the king's death . . . it was placed in a special shrine or temple with the king's jaw-bone which is spoken of as the 'king.' The two ghosts, the one of the placenta, the other of the dead king attached to the jawbone, were thus brought together to form a perfect god to whom offerings were made in the *malolo*. The *malolo* or temple is entirely different from the tomb in which the king's body is laid; indeed, the *malolo* is built some months after the tomb, often, it appears at a considerable distance from the latter." (Roscoe in H., 68.) Respect is also given to the placenta among the Dinka, Shilluk, Bahima, and many other tribes of the Sudan and Nile deserts. (H., 66-8.) In Egypt one of the sacred standards carried before the king, is called the "Inner thing of the king" or the "Royal Child," and is considered by Dr. Seligmann to represent the placenta. Such custom as that of the Baganda would explain a most puzzling feature of Egyptian royal burials,—the two tombs often found. Several kings have two pyramids, or a pyramid in one place and a burial elsewhere. It might be thought impossible that a pyramid would be built for the placenta; but the second pyramid exists, and such an explanation—by existing custom—is at least more likely than any arbitrary guess that the modern "inner consciousness" might produce.

29. *Importance of leopard's skin*.—"Anyone killing a leopard, a giraffe, or an antelope called *gick*, must hand over the skin to the king . . . only the king could wear the skin of the *gick*, but his sons, grandsons, and great-grandsons might wear leopard skins, and . . . some old and important men, even if not of the royal blood, were allowed to use the latter." (S., 217.) In Egypt in early sculptures the king's descendants wear the leopard skin; and in later times the officiating priest might wear it, probably as lieutenant of the priest-king.

30. *Potency of the ox tail*.—"The tail of the ox, called Mawso, is the sign of office of all the Kongosovo among the Bavili; thus the idea of obedience to one in authority is implied." (N., 156.) In Egypt, from the first to the last dynasty, the king always wears the tail of an ox hanging from his girdle. It may be further connected with the king being called "the strong bull."

31. *Ensign of the saw fish*.—"Bafu = the saw fish, the snout of which the Budungu (king's police) carry as their sign of office. This snout is found in the Xibila" (sacred grove). (N., 156.) The saw-fish snout is twice represented on the barbaric colossus of Min of the pre-historic age, found at Koptos (Fig. 1).



1. ENSIGN OF THE SAW FISH,
ON PRE-HISTORIC STATUE,
KOPTOS.

Beliefs.

32. *The mundane spirit world.*—"The boundary line between this world and the next is . . . the entire absence of death or dissolution in the next world . . . So it is that they have neither a heaven nor a hell, spirit land being merely a continuance of this life on exactly the same conditions, each country and community having its allotted portion, and each individual resuming the exact position that was occupied when in this existence The ground there is just the same as it is here, the earth is similar, there are forests and hills and valleys, with rivers flowing, and roads leading from one town to another, as well as to houses and farms People in spirit land have their ordinary occupations; the farmer his farm, and the fisherman his nets and canoes." (L., 184-6.)

Thus in Egypt the whole future life was an exact repetition of the conditions on earth, as has been illustrated on pp. 26, 28, of this volume.

33. *Every object has its spirit.*—"Every domestic utensil as well as tool or implement . . . is endowed with a spirit of its own, that in its deepest essence is the animation and mover of the article in question." (L., 181.) Such was also the belief in Egypt, where every object had its name and individual existence.

34. *The ancestral spirit.*—"Sometimes the spirit of a person recently dead is spoken of as *jok*, but the term is generally reserved for the spirits of long dead and powerful ancestors Although the *jok* may send sickness, death and misfortune when annoyed or neglected, they are the guardian spirits of the house and clan, taking constant interest in the doings of their descendants, and being ever ready to help them The *jok* know when a child is born, and protect it from the very beginning The *jok* on both sides of the family protect the child A man's *jok* are ever near him in enterprise or danger." (D.) "It is believed that every ordinary individual, male or female, is attended by a guardian spirit, who is looked on as a protector, invariably of the same household, and with whom when alive personal friendship or attachment has existed. Every free man is attended by a guardian spirit, usually the spirit of his own immediate father." (L., 190.)

The African beliefs explain what has long been a debated matter, the nature of the Egyptian *ka*. The expressions which throw light on the *ka* are quoted on pp. 22-4 of this volume; and the conclusion to which they lead is that the *ka* was an ancestral emanation indwelling in each man, sent by the ancestor who was in the future world, and to whom the man would go at his death. Such conditions of the *ka* are well illustrated by the African beliefs, which enable us thus to clear and solidify our ideas about this entity.

35. *The roads of the future.*—"There is a series of traditional stories, each of which is called a road, a pathway, or a course." (N., 247.) These stories are supposed to be learned by every priest. Similarly in Egypt, at the close of the Old Kingdom, there was a series of recitals of sixteen paths or ways, as on the sarcophagus of Beb. (*Denderek*, 57.)

36. *Twins, human and animal.*—"Most of the Dinka clans whose token is an animal, derive their origin from a man born as one of twins, his fellow twin being an animal of the species which is the totem of the clan." (D.) This strange idea is also seen in Egypt, in the human Shu and lion Tefnut, the human Horus and animal Set.

37. *Ram-headed god.*—"The Ram-headed Soudanese gods Ara and Ara-dungs are, respectively, the Yoruban names for the storm and the thunderbolt. It has just been shown that the popular idea is that a storm is produced by a ram

Among those inhabiting the East far from the Niger, namely, Houssa- and Benue-land, a slight change in the conception of the divine Ram has taken place, with a distinct tendency to transform the Storm-god to a Sun-god" (F., 219, 221.)

"Prof. Flammand found large paintings in Algiers, south of Oran, on the cliffs, depicting the ram, neckleted, and crowned with the sun, whose rays are similar in form to the uraeus serpent." (F., 225.)

The Ram was the animal of the Theban Amen, signalled to all later time by the horn of Alexander's head, adopted as token of his descent from Amen of the Oasis, which gives him the oriental name of *Dhul-karnain*. The Ram was specially worshipped by the Ethiopians, and appears often on monuments of the XXVth dynasty. There was also a very important worship of the *Ba* ram of Mendes in the Delta, associated with Osiris, and dating from pre-historic times, see article in the previous number on "The Earliest Inscriptions."

38. *The bull god*.—"With the ancient Houssa, however, as with other Eastern tribes, it was the bull, and not the ram which was the supreme deity.

The godhead represented by the bull was Maikaffo (*vide infra* concerning Maikaffo and the Bull gods of the Ethiopians). Maikaffo had a wife, whose name was Ra. Now Ra is the mistress of the sun, or Rana. Now the sun was sunk into the sea of old within a chest of stone. The sun was shut up therein together with a white ram. None could bring up the sun and his companion again; Ra, the goddess of the Sun, did this; Ra brought the sun and the ram into the upper world." (F., 222.)

The many Bull gods of Egypt are familiar, from Erment down to the Delta. It may be only a coincidence that the goddess of the Sun has the name Ra, for verbal resemblances are worth less than those of ideas and customs; yet it is not at all unlikely that the name of Ra may have spread from Egypt to the Niger, though the original worship came apparently from the East.

39. *Totemism and animal clans*.—The word *totem* has been somewhat misunderstood, and some definitions of it may be taken first, bearing in mind the animal worship of different Egyptian nomes for comparison. "A totem is a class of material objects which a savage regards with superstitious respect, believing that there exists between him and every member of the class an intimate and altogether special relation . . . the totem protects the man, and the man shows his respect for the totem in various ways, by not killing it if it be an animal . . . As distinguished from a fetish, a totem is never an isolated individual, but always a class of objects, generally a species of animals or plants." (FRAZER, *Totemism*, 3.) In connection with this observe that it is always a species in the plural that is sacred in Egypt, *Heru* hawks, *Khnumu* rams, etc. "The Dinka . . . speak of certain animals as their ancestors, *kwar*; the *kwar* being the . . . animal 'who is the *jok* of the clan' (or the ancestral emanation, or *ka* in Egyptian). No man injures his *kwar* animal but all respect it in various ways . . . There is some evidence that when a clan is particularly strong in a given locality, its members tend to forget that their totem is but one among many, so that they show annoyance if other folk do not treat it with respect." (D.) Here is the basis of belief which fully accounts for the animal ensigns upon the slate palettes, represented as fighting and acting, and for the violent antipathies between the nomes, based upon the animals being sacred in one nome that were eaten in another.

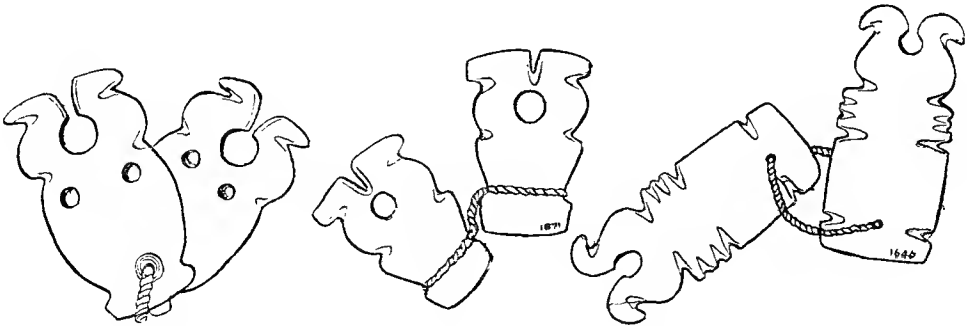
40. *The sacred sycomore fig-tree*.—"Every village has its 'prayer tree' under which sacrifices are offered . . and is, sometimes at any rate, a wild fig-tree.

Livingstone says: 'It is a sacred tree all over Africa and India'; and I learn from M. Auguste Chevalier that it is found in every village of Senegal and French Guiana, and looked on as 'a fetish tree.' (W., 62-3.) Compare with this the representation of the sycomore fig-tree, with the goddess appearing in it, giving food and drink to the worshipper who has deposited his offerings under the tree. Hathor was specially called "the lady of the sycomore," and the well-known hero of the XIIth dynasty tale was called "the son of the sycomore" showing that the tree itself was deified.

41. *Red cattle sacrificed for the hippopotamus.*—"It is not uncommon for a goat to be killed as a direct appeal to the *jok* before hippopotamus hunting. The Tain Dinka . . . select a 'red' he-goat, or sheep, because the hippopotamus is 'red.' (D.) In Egypt red was the colour of Set; the hippopotamus was the animal of Set (see the hippopotamus standard weight from the temple of Set at Nubt); and red victims were sacrificed to Set.

42. *Animal skulls hung up.*—"Another shrine . . . consists of the trunk of a tree, thrust into the ground; the main branches have been broken off short, and part of the vertebral column and horns of a goat have been attached to them . . . the skull and backbone were put upon the post." (D.) "The vain ceremony consists of a sacrifice . . . the bullocks are killed . . . the bones of the sacrifice are thrown away, but the horns are added to those already attached to the *rit*" (a post in front of the shrine). (D.) The earliest figures of a shrine in the Fayum shew a bull's skull on a pole above it; and in the graves of the invaders after the XIIth dynasty dozens of fronts of skulls and horns, of ox and goat, are found, decorated with red and black spots, evidently intended to hang up.

43. *Divination by objects thrown.*—"Ophe is an oracle . . . always represented by eight flat pieces of wood on metal, or something else, strung together in two rows of four on each side. The dispositions of one or other of these pieces, when the whole ensign is thrown and made to spread out upon the ground, would represent at once a particular *Odu*." (N. 250.) "An ensign made of pieces of ivory, carrying four eyelets each." (N. 255.) "The cola-fruit is commonly used for divination. It is commonly split in halves and thrown upon the ground, the position assumed then by the pieces, with faces up or down, declaring either good or evil." (N. 258.)



2. PAIRS OF SLATE FIGURES USED IN PRE-HISTORIC EGYPT. NAQADEH.

The groups of slips tied together, are like the pairs of slips of slate, often found in pre-historic graves, which always have a tying hole or notches at one end, and which so tied would thus lie in various positions one to another when thrown down. Two such pairs were found in a box, along with a pair of ivory tusks ending in carved heads, in a pre-historic grave at Naqadeh, and recognised then as

being probably a magician's apparatus. The divination by the outside or inside of nuts lying up, is like the modern Egyptian throwing of lots with slips of palm stick, counting the inner or outer sides as they lie. Such was doubtless a method in the Ist dynasty, when slips of ivory were carved, flat on one side, and with the knots of a reed carved on the convex side (Fig. 2).

Material Products.

44. *Red and white pottery.*—The modern pottery of the south of Algier is faced with red haematite, decorated with white slip, of the same fabric and colours as the early pre-historic pottery in Egypt. The geometrical patterns are also closely alike, and it is generally accepted that the Algerian pottery is a continuation of the same style as the earliest decorated pottery of Egypt.

45. *Red and black pottery.*—"The women having procured the right kind of earth break it up on a stone and knead it with water, till it attains the proper consistency; they then mould a round lump, make a hole in the middle, and work away at it with their hands and now and then a bamboo splint. No wheel or mould is used. Sometimes an incised pattern is made while the clay is soft. When finished, the pot is stood in the shade for a day; then they put it out into the sun, and when dry, burn it in an open wood fire Pots are sometimes coloured red by mixing oxide of iron with the clay; sometimes they have quite a good glaze, and the red surface is variegated with black bands." (W. 205.) This appears to have been the method of making the usual pre-historic pottery in Egypt, with the polished red haematite facing.

46. *Mud toys.*—"One sometimes comes on a little group of children quietly busy and happy on a bank of a stream, and finds that they are engaged in modelling

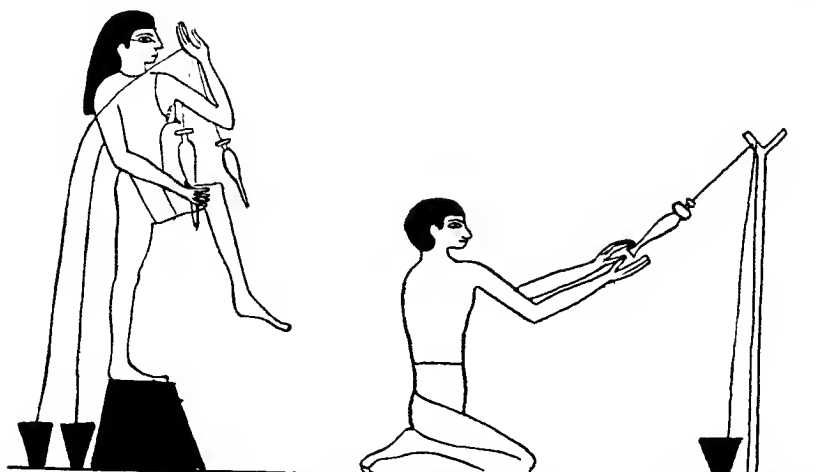
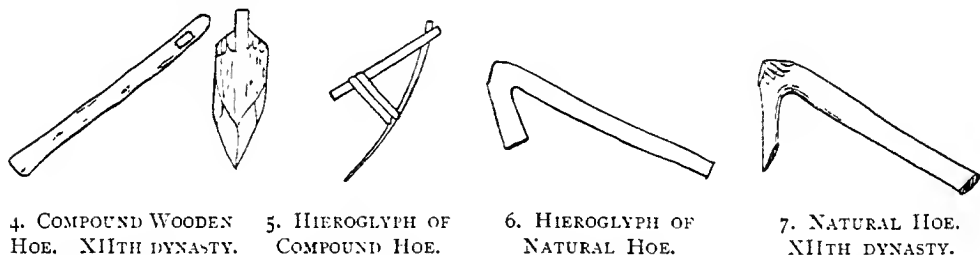


3. MUD TOYS OF MUMMY IN COFFIN AND ANIMALS. XIIth DYNASTY. KAHUN.

figures out of clay. One does not see this art carried into adult life ; and as there is no attempt to make the results permanent by burning them, they are not often met with." (W. 117-8.) Mud toys were also usually made by Egyptian children, most of those preserved are from the town of the XIIth dynasty, Kahun. Men, women, and various animals are here shewn, and a model sarcophagus and mummy, a truly Egyptian toy (Fig. 3).

47. *Wooden head rests.*—These are usual in Africa, and are sometimes carved. (W., 144.) The head rest began to come into use in Egypt in the IIInd dynasty, and was very common in all the great periods of civilisation, of many different types, some elaborately carved.

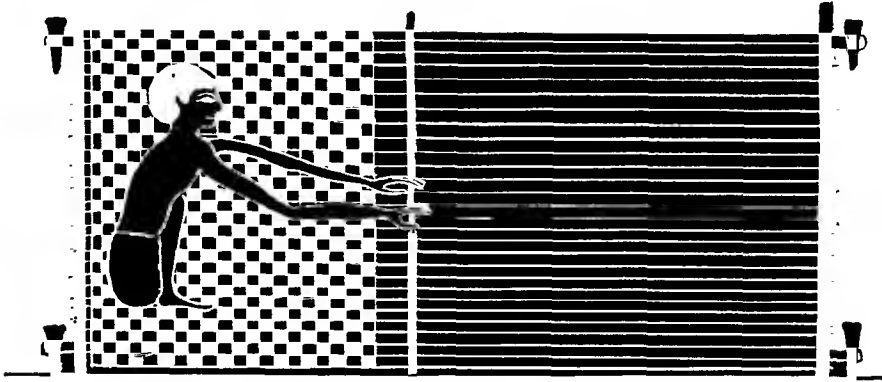
48. *Natural and compound wooden hoe.*—"The universal agricultural implement is the hoe, which, in this part of Africa, has a short handle, so that the person wielding it has to stoop, but also gains much more power for the stroke than one has with a long handle. The blade is leaf shaped, rounded to a blunt point in front, and tapering to a spike at the back, which is driven into the handle . . . wooden hoes are still used in some remote places among the hills. They have very long rather narrow blades, set into the handle at an acuter angle than the usual iron hoe, but, like it, suggesting the origin of this implement from the primitive forked branch, with one of the ends cut short." (W., 180.) Similarly in Egypt there is the natural hoe cut from a branching tree (Fig. 7), found in the XIIth dynasty, and represented in the hieroglyphs (Fig. 6). Copied from that is the compound



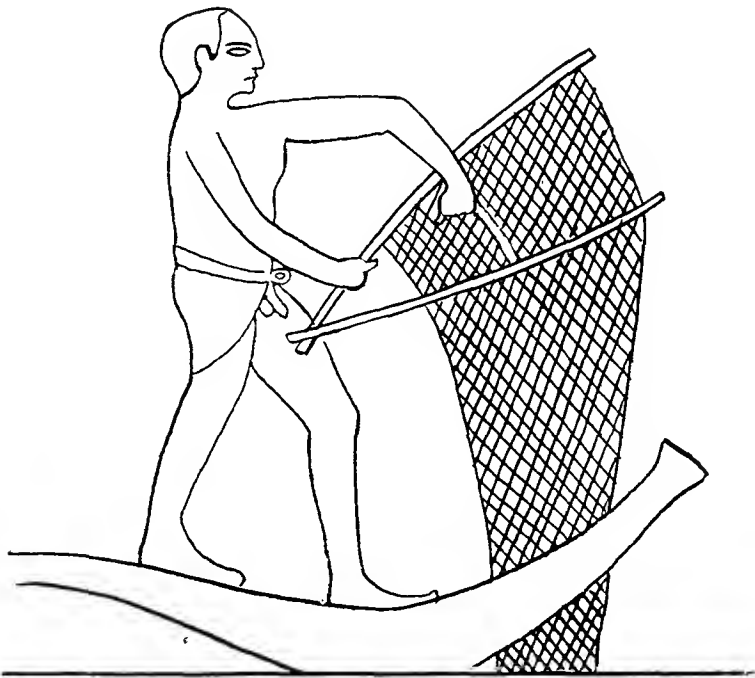
hoe with leaf-shaped blade, pointed in front, and with a spike at the back to go through a hole in the handle (Fig. 4) ; this is the hoe figured as the hieroglyph *mer* (Fig. 5).

49. *Double process spinning*.—"The spinning wheel is unknown, and the process of twisting the thread by hand, and then spinning it on the *njinga*, a wooden spindle with a whorl or reel of tortoise-shell or hard wood, is a very leisurely one." (W., 195.) At Beni Hasan in the XIIth dynasty is shewn the process of spinning the thread which has been already twisted by hand (Fig. 8). This is by no means a usual process, as the spinning is done direct from the loose wool in modern Egypt, as it also was in Greece.

50. *Flat ground-loom*. "Three or four bobbins-full of thread are used to 'set' the loom, which consists of four posts driven into the ground and connected by cross bars." (W., 196.) The Egyptian loom was likewise flat on the ground between cross bars, fixed to four pegs driven into the ground (Fig. 9).



9. FLAT GROUND LOOM. Tomb of Khety, Beni Hasan. XIIth dynasty.



10. SCISSOR HAND NET. Vth dynasty Tomb of Ptah-hotep, Saqqareh.

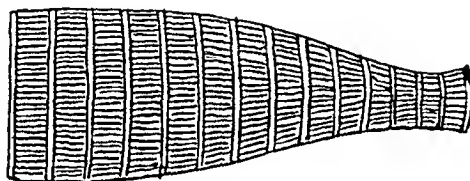
51. *Mosquito nets*.—Sleeping nets are woven of palm fibre; also "sleeping bags used by the River natives as a protection against mosquitoes." (W., 200.) Mosquito nets are described by Herodotos as used by natives of the Nile Delta.

52. *Harpoon*.—"Before going fishing or hippopotamus hunting a man takes his harpoons to the wife of the rain-maker who rubs them with oil made from hippopotamus fat." They try to secure the help of the ancestral spirit "in fishing and in harpooning hippopotami." (D.) The harpoon was the regular fishing implement, first of bone in the early pre-historic age, then of copper, often figured in the Old Kingdom fishing scenes, and lastly of iron in Roman times. The Bunyoro use "a harpoon attached to a long rope made of fibre. To this rope a float is tied to indicate the movements of the hippopotamus till dead." (K., 112.)

53. *Drag net*.—"Nets are anchored with a couple of stones, the upper edge being kept at the top of the water by a line of floats . . . sometimes the ropes are taken on shore, and the net hauled up on the beach, like our seines. This is done with the largest kind of net, requiring twenty men to handle it." (W., 193.) This is the regular pattern of Egyptian net, represented in dozens of tombs of the Old Kingdom, with a line of floats and a line of sinkers.

54. *Hand net*.—"Hand nets are also used like shrimping nets, with handles working over each other, scissor-wise, but kept in place by a cross bar." (W., 193.) Such nets are shewn as used in the Vth dynasty (Fig. 10).

55. *Basket traps*.—"On Lake Nyanza they use "basket traps constructed on the principle of a lobster pot." (W., 193.) Similar basket traps were used in the

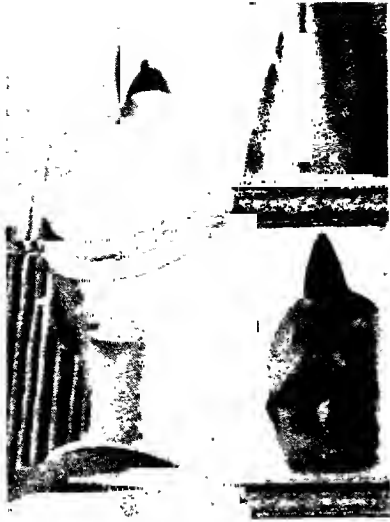


11. BASKET TRAP FOR FISH. VITH DYNASTY.

Vth dynasty (Fig. 11). "The Bakeni make huge crates of thin plaited cane for fish-traps, in shape much like a water-pot with a very narrow mouth." (K., 213.)

56. *Ring snares*.—"A favourite snare for antelopes is in the shape of a ring, made of twigs and fibre, the centre being entirely filled with huge thorns pointing inwards, leaving only a small circle in the centre. This is set over a small hole in the ground; an antelope treading on the ring puts its foot through, and is unable to withdraw it, owing to the thorns." (K., 117.) Such a trap made of splints of palm stick was found by me some years ago, and is now in the Anthropological Museum, Oxford. On the pre-historic painted tomb at Hierakonpolis is shown a large circular trap of this pattern, with four animals standing around it, to provide game for the deceased (*Hierakonpolis*, LXXVI).

57. *Cone on the head*.—"In the Gan country, "The main head ornament is the *giwich*, which is itself made of hair as a basis. The hair shaved off from time to time is carefully saved until sufficient is collected to form a sort of cone, some four inches high, and three in diameter at the base. This cone is usually decorated . . . with strings of white and red beads, . . . with small rings of brass, . . . the summit . . . with an old cartridge case." (K., 188-9.) This cone of hair (Fig. 12) seems to explain the cone of the same size which is represented on the head in the XVIIIth to the XXth dynasties (Fig. 13). It has never been understood hitherto; but as it was obviously some very light object it may well have been a cone of hair like the modern African, though not bound round with beads and metal rings.



12. CONE OF HAIR WORN IN THE GAN COUNTRY.

Kitching, *Backwaters of the Nile*, p. 127.



13. CONE WORN ON HEAD AT THEBES. XVIIIth DYNASTY.

Late influence from Egypt.

There appear to have been at least three periods when influences spread in Africa either from, or through, Egypt. The earlier is under the strong power of the XXVth dynasty at Napata; this kingdom borrowed its writing and much of its culture from Egypt, and spread it to outlying regions of its rule. This, however, did not apparently spread as far as the Equator or Niger.

The great activities of the sixth century B.C. spread as far as the Niger, as is shown by

58. *Terracotta Nigerian heads.*—These are illustrated in our second part (p. 85); the style of art and the solid modelling (not hollow moulding) stamp these as of the same school as the best modelled heads found at Memphis, of the Persian age. They cannot have been derived from the much rougher hollow moulded figures of Ptolemaic or Roman work. The style is admirable, and could not be surpassed for a racial portrait, identical with the present type of the people.

The later influence of the Greek world is seen in

59. *The classical patterns* still used on the Niger, copied from the Greek vine scroll, egg and dart, and other border designs. (See FROBENIUS, *Voice of Africa*, II, 464.)

The next great wave of influence was due to the spread of Christianity, especially under the pious sway of Justinian. This is seen perpetuated in No. 60.

60. *Interwoven patterns.*—These are found at Benin and other Nigerian centres. This style was originally belonging to the nomads of Central Asia, who developed osier work for their tent life (see the interior of a Kirghiz tent in SKRINE and ROSS, *Heart of Asia*, 183). It was brought into Roman mosaics of the second century, probably by the Dacian and northern captives. It did not, however, affect architecture till the northern influence on Constantinople, where the interwoven basket capital started; and the interwoven marble screens in Italy do not appear till the Gothic occupation. By the time of Justinian this style was fixed in Roman art; and it must be in that age, before the crushing Arab conquests, that this style was spread so strongly in Egypt and onward to the Niger.

61. *Architectural style*.—"The Songhai seem to have adopted an imitation of ancient Egyptian architecture in clay and wood instead of stone. They in their turn subdued the Mandingos . . . in the city of Jenne, at the confluence of the Niger and the Bani. From Jenne was radiated over all the Western Sudan a diluted Egyptian influence in architectural forms, in boat building, and other arts." (J., 10.) It may perhaps be more accurate to state that the Songhai have continued the Egyptian style of brick and woodwork, which has been best preserved to us by the architectural copies in stone. The general unity of style in building from Upper Egypt across North Africa is very marked.

In this connection it might be expected that the arguments in a paper on the African origin of the Egyptian civilisation, in the *Revue Archéologique* (1913, 11, 47-65) should be introduced. I regret that I cannot accept the statements there brought forward.

After having shown how much of general African ideas and culture lies at the foundation of Egyptian civilisation, and how in a few cases Egypt has influenced Africa, it is needful to say that this by no means covers the whole culture. There was a large influence from Syria in the second pre-historic civilisation. Another, and most potent, influence was that at the founding of the dynasties, apparently originating from Elam, to judge by different connections, especially the style of some cylinder seals. A third great influence in the first dynasty, and all later ages, was the Mediterranean culture, from Crete, and later from Hellas. These other sources made Egypt what it became, although we can see the African substrata strongly, especially in the early periods.

W. M. FLINDERS PETRIE.

PERIODICALS.

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Annals of Archaeology and Anthropology. Vol. VI. 170 pp., 34 plates. Vol. VII, parts 1, 2. 10s. yearly. University Press, Liverpool.

(As one volume, and half of another, have been issued within twelve months, it will be most suitable to take the whole contents in historical order.)

SELIGMANN, C. G.—*Ethnic relationship of the Vanquished represented on certain Proto-dynastic Egyptian Palettes* (VII, 43-9). This is a discussion of the lower part of a palette in the British Museum, with carvings of lions and vultures devouring the slain. The vanquished people have (i) curly or frizzly hair; (ii) a chin tuft, sometimes plaited, and narrow whiskers; (iii) noses which are thick, but not snubby; (iv) thick lips; (v) peculiar circumcision. From these points it is concluded that they were a mixture of negro and Beja tribes of the eastern desert; such people, apart from the negro element, may well have been like the pre-dynastic Egyptians, and the plaiting of the beard is seen also in the figures of Egyptian gods and kings. On the Narmer palette the two running figures, and the man trampled on by a bull, are of this same type, specially indicated by the circumcision, but differing by the hair not being frizzly. Dr. Seligmann claims all the plaited-beard people, whether north or south, as being kin to the pre-historic Egyptians, mixed with negroes in the south, and perhaps with other races in the north; the resemblance however, shewn below seems hardly close enough.



1. TYPE WITH PLAITED BEARD AND CURLY HAIR. Slate palette.

2. TYPE OF CAPTIVES OF NAR-MER.

WAINWRIGHT, G. A.—*The Keftiu-people of the Egyptian Monuments* (VI, 24–83). The main feature of this long paper is the complete collection of all the lesser points of evidence, discriminating the different peoples concerned, and granting that the Egyptians were not merely drawing haphazard but observing details. It is fairly shown that any confusion in the matter lies in the lazy and careless observation of the modern and not in that of the ancient. The land of Keftiu has been variously supposed to be Phoenicia, from the Ptolemaic rendering; or Crete, from a supposed identity of Caphtor with each land; or Cyprus, from vague grounds of position. Max Müller's identification of Keftiu with the eastern part of Cilicia is that which is strongly supported by the results of this paper.

The method here followed is by analysing the mass of material into as many definite items as possible, and then statistically saying what proportion of these items are found in other situations. The various items are set out in plates separately one by one, so that each issue can be judged clearly. This is the only way of dealing with a mass of detail, which otherwise slips over the mind leaving a vague impression. Thus it is shown that the foreigners in the tomb of Rekhmara, who are definitely called Keftiu, bring 59 objects; of these 38 are Syrian, 5 are known to be non-Syrian, while 16 are peculiar, and suffice to show that Keftiu is in some way different from Syria.

The grouping of the various countries in Egyptian records shows that Keftiu goes with the northern and western Asiatics. The order is given as,—the west land, Keftiu, and Asy (Orontes); Naharin, Keftiu, and Mannus (Mallos, Cilicia); Tunip, Ikariti, Keftiu . . . Tikhsi, Naharain (*i.e.*, between Syrian and Mesopotamian places); Naharain, Sangara, Kheta, Keftiu, Asy. These point to the north of Syria. That Cilician was regarded as Syrian is shown both by Sennacherib and Herodotos; and the natural boundary is the great Taurus range and the plateau north of it, rather than a bend in the coast line. Eastern Cilicia is therefore indicated as Keftiu.

The question of the People of the Isles is next considered. Their name immediately follows that of Keftiu in Rekhmara; but there is no reason to suppose them synonymous. On the contrary, the two names are never conjoined elsewhere; they seem here to be those of two different people, stated side by side.

By a process of systematic elimination the products of each region are cleared one from another; these are collected from the tomb-paintings of Rekhmara, Men-kheper-ra-senb, Amenemheb, and Senmut. The objects belonging to the People of the Isles are then compared with those figured in Crete, and shown to be similar. The types of dagger and sword depend upon the marking of the mid-rib; those of Crete have a mid-rib, like those of the People of the Isles and the pre-historic Egyptian; while those of the Keftiu and the Hyksos have only a wide thickening of the blade in the middle, such as is seen on the Egyptian daggers of the XIII–XVI dynasties. The ribbed dagger has a pointed end; the flat-faced dagger has a round end; the one is for thrusting as a rapier, the other for cutting as a knife.

The form of waist cloth differs between Crete and Keftiu; the Cretan is very short, with a loose flap behind; the Keftiuan comes over the whole thigh, and has a point hanging down between the knees; the style of decoration is also quite different.

The sorting of all the material results in there being 87 objects which are purely Keftiuan; of these, 60 have analogies to Syrian objects, 7 are non-Aegean from Rekhmara, and 20 are dissimilar to objects of other lands. The latter show that

we are not dealing with general Syrian products. The various objects are all discussed in detail, showing what comparisons may be brought forward. Among these we may note that copper and silver were both brought by Keftiu people in ingots, and therefore produced in the country. This definitely cuts off the Cretan suggestion, and the silver also bars the possibility of Cyprus, and shows that Keftiu touched the Taurus range. Jeremiah and Ezekiel both refer to silver coming from Tarshish (Tarsos). Another distinction is that gold is shown in the Syrian tribute, but not among the produce of Keftiu.

Regarding the meaning of Caphtor, no very certain conclusion is reached, after reviewing all the opinions. More probably Keftiu and Caphtor are identical, but neither of them can be Crete. The Septuagint translates Caphtor by Cappadocia.

In an appendix various resemblances are stated between the civilisations of Syria and the Creto-Aegean area. These not only show that the Cretan and Keftian resemblances are parts of a larger whole; but, much more, they show how the culture of the North-eastern Mediterranean was a single group, with mere variations locally. This is highly probable, as the area is not larger than the Italic area bounded by Greece and Sardinia, or the Spanish area from Sardinia westward. This paper is perhaps even more important for its method, and bearing on future work, than for its immediate conclusions.

WOOLLEY, C. L.—*Hittite Burial Customs* (VI, 87-98). For the first time we come into close contact with the Hittites, by the objects of daily life recovered from their graves. These have been studied not only in the excavations of the British Museum at Carchemish, but also by keeping in touch with the large produce of the excavations of the Bagdad railway and the plunderings by natives. The periods distinguished are as follows:—

I. NEOLITHIC. Carchemish, Yunus.

BRONZE AGE.

- II. Champagne-glass tombs, Carchemish, &c.
- III. Early Hittite?, before 1750 B.C., Hainmam.
- IV. Middle Hittite, 1750-1100 B.C., Amarna, &c.

IRON AGE.

- V. Late Hittite I 1100-718 B.C. } Yunus.
- " " II 718-605 B.C. } Carchemish, &c.
- VI. Persian, 605 to 4th century B.C.

I. Pre-historic. The burials are contracted, and seated upright like Libyan burials. They are in large pottery vases, placed below the floors of neolithic rooms, which are strewn with flint and obsidian tools, and hand-made pottery.

II. Early Bronze. Cists of stone about 8 x 3 feet, are in connection with mud-brick houses. The body is contracted, with bronze weapons and ornaments, and much wheel-made pottery, among which is what is called the "champagne-glass pot," which is almost the same as the tall stemmed incense burner before the Middle Kingdom. Whether this is truly a bronze period, or whether it is of copper, is not stated. This period overlapped the last, burials of both styles occurring together. The toggle pin, with an eyelet a third of the way down it, occurs in this period, and this is known at Gurob in the XVIIIth dynasty, and as far east as Nippur.

III-IV. Early and Middle Hittite. These burials are like the previous, except that they are in cemeteries, and not under houses. Early Sumerian cylinders are found in these burials of period III. Plenty of toggle pins are found, but otherwise nothing in touch with Egyptian types. The pottery is quite clear of such connection, and none of it could be dated from Egypt. The daggers are all smooth bladed, without any mid-rib. From the Sumerian cylinders this bronze age must begin far before the Hittite migration, which came into Mesopotamia about 1750 B.C. The Hittites must therefore have come in during the Bronze Age. It is supposed that they were a military caste, small in numbers, which did not largely alter the general culture.

On reaching the Iron Age, cremation in urn burials is found, with bronze fibulae of Cypro-Asiatic type, and imported Greek and Cypriote pottery. The rude "snow-man" figures of clay are found, and as such are common in Egypt about 1100-700 B.C., the dating exactly agrees; probably the source of them there is Asiatic, especially at Tell el-Yehudiyeh. At that place also were found ribbed bronze fibulae, like those of the Hittite graves. (*Hyksos and Israelite Cities*, XXA, grave 321.) Most of the precise detail of the Carchemish graves is reserved for the final publication by the British Museum.

GARSTANG, J.—*The Sun-god[dess] of Arenna* (VI, 109-118). This is a discussion of the well-known description of the official seals of the Hittites, as stated in the Egyptian treaty. A difficulty in understanding it has been in the sun deity being stated to be feminine. This has, however, been found also on a tablet from Boghaz-Keui; as parallels there may be mentioned the Semitic *Shemash* and the teutonic *Sonne*, both feminine. It might be an important clue to some ethnography to classify all people by the sex attributed to sun and moon, as it is a very primitive idea. The broad result is that the queen was heiress of Arenna, and high-priestess of the Sun-goddess there; while similarly the Hittite king was high-priest of the Sun-god at Boghaz-Keui. In each case a minor fellow-deity was associated; the male Teshub with the Ishtar of Arenna, and Ishtar-Kybele with the Teshub-Hadad of the Hittites. The position of Arenna, as capital of Kizawaden, is next considered. The indications are that Kizawaden is Kataonia, as stated in *Student's History*, III, 68; Arenna, however, is not placed at Arana (39° 5' N., 37° 35' E.) but at Comana (37° 58' N., 36° 12' E.). The ground for this is that in the fifth year of Tiglath-Pileser the mountaineers of Kumani retreated upon "the fortress of Arini at the foot of Mount Aise." The proposed connection entirely depends on the resemblance of the name of Arenna to Arini, while it is at least quite as much like the name Arana. That the people of Kumani retreated to Arini is not at all a reason for identifying Kumani-Comana with Arini, rather the opposite. There does not seem therefore any ground for this proposal of Comana being the ancient capital of Kizawadana. The occurrence of a radiated goddess on the coins of Comana in Roman times is not enough to prove that Comana must be the same as any city which worshipped a Sun-goddess long before.

LEHMANN-HAUPT, C. F.—*Note on the Linen Girdle of Rameses III* (VII, 50). From previous description it is concluded that this girdle was not loom-woven, "but is a product of the old technique of weaving with cards or small wooden boards"; this statement is made in advance of any examination of the girdle, although such only involves going from Liverpool to Manchester.

GARSTANG, J.; GEORGE, W. S.; PHYTHIAN-ADAMS, W. J.; SAYCE, A. H.—*Interim Reports on Excavation at Meroë* (VI, 1-21; VII, 1-24). The general outline of Meroitic remains is summarised in a table, which may be abbreviated as follows:—

EARLY MEROITIC: 650-400 (?) B.C.

Foundation of palace of Aspelut, Hor-ma-ti-leq, etc.
Earlier Sun temple of Aspelut.
Original temple of Isis.
Original temple of Amon, probable.
(*Interval of probably a century.*)

MIDDLE MEROITIC: 300-0 B.C.

- I. 300-150 B.C. Ergamenes.
Great stone walls of city.
Foundations of later temple of Amen.
Burial by inhumation at necropolis, by cremation near city.
- II. 150-0 B.C. Neteg-Amon.
Royal palace and avenue.
Many buildings of red bricks, crematorium in city.
Baths and observatory,
Sun temple; Isis temple.
Osiris shrine and two great steles.

LATE MEROITIC: A.D. 0-350.

Restoration of baths, with Roman motives.
Palaces and temples.
Restoration of Amen temple,

Period of decline, desertion and destruction.
Overthrow by Axumites, A.D. 340.
Final destruction about A.D. 700.

The result of the last season's work has been to complete the clearance of the whole of the northern half of the city; a space of about 100 x 200 yards, the earth being removed to outside of the area by wire rope and trolleys. For comparison of size we may say that the Egyptian town of Kahun is six times this area, or the Palace of Apries at Memphis is about half this area. The finest period of work is stated to be the middle period of about 150 B.C. The main entrance to the city on the north led up a wide street, with half a dozen trees on each side, which ran along the side of the palace to the middle of the city. At the other side of the palace is a building for a cremation cemetery and a crematorium. "Nearly every chamber enclosed numerous vases, for the most part below the floor level. These were uniformly inverted, and generally contained ashes and bones in a more or less incinerated state." Other chambers in the palace also had similar burials. The vases correspond in form and decoration with those of the Ptolemaic cemetery at Alexandria. This change of burial custom is attributed to Hellenistic influence.

A matter which might prove of great interest is a room supposed to be an observatory. The evidence for this lies in two stone piers, one square, one octagonal, and graffiti on the wall, shewing a man with a circle and lines proceeding from it, supposed to represent a transit instrument. The great difficulty about

any astronomical idea connected with this place is that it is not oriented, but has its axis about 33° E. of N. This direction is not laid out for any special purpose, but is merely that of all the buildings of the earlier direction, across the whole city. It seems impossible to suppose that any observations could be intended in a place where the meridian was disregarded. Any transit instrument would have to be set up entirely askew to the pedestals and the room. A tally of strokes on the wall of the chamber consists of 9 strokes, and then $8 + n$ strokes; a horizontal line then runs across; below that are two columns of strokes, one has $15 + 15 + 15 + 5$, the other has $15 + 15 + 15 + 10$, or 50 and 55 strokes. These are here compared with a statement that at Ptolemais on the Red Sea, nearly in the latitude of Meroe, an interval of 45 days elapsed between the summer solstice and the two dates (before and after) whereon the shadows of the sun were vertical at noon. Now the latitude of Meroe is stated as $16^{\circ} 56' 18''$ N., and a brief reference to Whitaker's Almanac shews that the sun is at that declination on May 8 and on August 6, 90 days apart. Therefore if this tally shewed the number of days when the sun was north of the vertical at noon, it should be 45 in number, and not 50 and 55. To agree with these numbers the vertical must have been fixed 2° in error, which is very unlikely. The change in obliquity of the ecliptic would not make a single day of difference since that period. The numbers therefore will not correspond to any such observation. On the square pedestal converging lines are drawn, 14° on either side of a quasi-vertical line, which leans $3\frac{1}{4}^{\circ}$ to the north. The sloping lines point therefore at the upper ends 17° N. and 11° S. of the vertical. This angle of 17° N. is said to correspond with the latitude; but there is no sense in this equality, as it points to nothing in particular. If it pointed to the south it would be in the equatorial plane, were it set in the meridian. Here the skewness of the whole chamber to the meridian again prevents its being possible to recognise any astronomical meaning. The graffiti, which are stated to represent a "transit instrument," look more like a plan of part of the city street; and the Azimuth instrument suggests a mason's square. It would be fascinating if we could identify the means of observation, but there seems nothing here to prove it.

At 2 or 3 kilometres from the city a shrine of Osiris was found, which was the main discovery of the season. It contained two great steles of sandstone, with long inscriptions in cursive Meroitic, placed one on each side of a shrine, facing west. A copy of the larger stele is given, with an index of all the words in it, and a transliteration. Though very little is yet known of the language of this script, Prof. Sayce has made a first study of the stele, identifying the proper names, and the subject. It was erected by Queen Amon-rênas and Agini-rherhe, hereditary king of Roman Kush, and of the Egyptian frontier and the land of Etbai, hereditary prince of the Romans in Kush. These rulers are also known at Dakkeh, and in previous inscriptions at Meroe. The style of writing is later than that of Queen Amon-shaghêt, whose jewellery—now in Berlin—shews her to have lived in the later Ptolemaic age. The present stele is therefore probably of early Roman age. The captives of the king were offered to serve Apis of Biggeh and Osiris. The second stele refers to the same war, naming victories at Aswan. This is probably the Ethiopian version of the war with Petronius, 24–22 B.C. Amenhetep III is stated to have founded the kingdom of Meroe.

In the previous year the main result was the clearance of the great baths; the square swimming bath was 21×23 feet. There had been several alterations and re-constructions, which obscure the history of the building. The fragments of a column suggest that a shower-bath, some 20 feet high, was arranged. The

great mass of detail in the excavation of this Ethiopian capital cannot be usefully mentioned in a summary, so that only those points which are of independent interest can be here noticed. The brief yearly reports give an excellent view of the results, which will probably appear at some future time in the much less accessible form of a great work, such as the repute of the Ethiopian capital demands.

MILNE, J. G.—*The Currency of Egypt under the Romans to the Time of Diocletian* (VII, 51-66). Egypt had its own native coinage of silver and copper for the first three centuries of Roman dominion. The base silver became steadily worse; at first the tetradrachm, which had been equal to 3*s.* weight at the time of Alexander, started under Tiberius as half silver, and was only credited as being equal to the denarius or 8*d.*; from that it steadily ran down through more and more alloy, and tin facing, until it was nothing but a little barefaced dump of copper worth only about a five-hundredth of the original tetradrachm. Gold was not coined after the Ptolemies, and Roman aurei are rarely found except in a few hoards of treasure. Mr. Milne follows the usual course in writing of "bronze" coinage of Rome; but the Imperial copper was always alloyed more with zinc than with tin, and in some coins almost entirely with zinc, so that the old term, such as "first brass," is the more correct. The sizes of nearly 500 of the copper coins are tabulated, and shewn to fall into five classes, the largest of which are $1\frac{1}{3}$ inches across. The weights of samples of these are taken; and on the ground that the largest coin is likely to be the largest amount of copper named in accounts, it is supposed to be equal to the drachma of silver. As this largest coin averages 360 grains, it follows that the base silver tetradrachm would be equal to 1440 grains or the *deben* weight, which Poole shewed was the original basis of the Ptolemaic currency. As silver was to copper as 120 to 1 in value (GRENFELL, *Revenue Laws*), it would follow that the base tetradrachm would be counted as only containing 12 grains of silver. This would be an absurd result, during the earlier empire. Working the matter from the known facts, the weight of 1440 grains of copper, at 120 to 1, equalled 12 grains of silver or quarter of a denarius, and the denarius was reckoned as equal to the base tetradrachm. The base drachma was therefore equal to the *deben* of copper; and the quarter *deben*, the largest coin struck, was equal in value to $\frac{1}{4}$ of a base drachma or $1\frac{1}{2}$ obols. If the ratio of silver to copper value were 90 to 1 the coin would be of 2 obols; or if it be higher than 120 to 1, then the copper coin was worth even less than $\frac{1}{4}$ drachma. Mr. Milne quotes silver values of 350, 450, and 500 times the weight of copper; but these are so high that we must suppose that complications of base currency somehow come in. In modern times, before depreciation of silver, the proportion was 80 to 1, at present it is only 35 to 1.

The weights of the five classes are about 360, 201, 133, 75 and 26 grains. If on the ratio above we count the largest as equal to $1\frac{1}{2}$ or possibly 2 obols, then the others might be 1 obol, 5, 3 and 1 chalc.

It is remarkable how long the Ptolemaic tetradrachms continued in use; one document is quoted, of A.D. 227, stating that a loan was in the old silver coins. This seems, at first, hard to reconcile with the axiom that "bad money drives out good," which is true when both pass for equal values. That the Ptolemaic coins had not been driven out, shews that all the depreciations that had taken place had always been so quickly discounted in the accepted values, that there had never been a false value current long enough to drive out the old coin.

For a table shewing the fluctuations of the minting in Egypt we are indebted to Mr. Milne in "Historical Studies." A curious feature is the long spells of ten to twenty years during which the mint seems to have been almost disbanded, under Domitian, Aurelius, and Severus.

Other papers hardly touch Egyptian interests, such as Prof. Seligmann's account of the Magico-religious aspect of iron working in Southern Kordofan. A Greek inscription of lists of high priests of Poseidon at Halikarnassos, shews long family descents of two lines, with the length of each priesthood, the result giving nine generations in 352 years; altogether 489 years are recorded, ending certainly before A.D. 43, and therefore beginning before 447 B.C. The notes unfortunately do not give any analysis of this interesting document. Some excavations in Honduras are recorded; and Mr. Mond gives accounts of a practical wire-rope line for moving earth in excavations at Meroë.

The Journal of the Manchester Egyptian and Oriental Society, 1912-13. 8vo, 78 pp. 5s. (Manchester University.)

Besides the reports of meetings of the Society there are some special articles on Egypt which deserve notice.

HALL, H. R.—*The Land of Alashiya*. The incised black ware vases, with narrow neck and handle, found in burials of the XIIth-XVIIIth dynasties, are decidedly assigned to a Syrian source, whence they were exported to Cyprus and Egypt. The land of Asi has been supposed to be Cyprus, but the products of the mainland coming from it show that it must have been in the south of Asia Minor, as it is coupled with Keftiu (Mr. Wainwright has since shewn that Asi is the modern Nahr el Asy, the Greek Axios or Orontes). It may be that Cyprus is Tinay or Antinay which once sent tribute, like the Assyrian name Yatnan, which was certainly Cyprus. After reviewing many foreign objects Mr. Hall concludes that there is nothing distinctly Cypriote in Egypt. The references in the Tell Amarna letters do not favour Alashiya being Cyprus. Mr. Hall prefers to see Alashiya on the mainland, between the Khatti and Syria. The use of cuneiform would agree with this position, yet after all he does not decide finally against Alashiya being Cyprus.

A study of the geography of the Assyrian Kummukh, the Greek Commagene, and Tigleth Pileser's conquest, by Mr. King, does not touch on Egypt.

GARDINER, ALAN H.—*A Political Crime in Ancient Egypt*. A further instalment of the letters concerning Pai-onkh has come to light at Berlin. This son of the first priest-king, Herhor, is the main person in the *Correspondence du temps des rois-prêtres*, published by Spiegelberg, a series of letters which has been widely scattered by the chances of digging and dealing. The three letters here were all rolled together, put in a wrapper, and sealed up as done with. The first correspondent, whom we will call A, was the scribe of the necropolis, Zaroi. The second, B, was the bailiff of Pai-onkh at Thebes, called Pai-shu-uben. The third, C, was no less a person than the queen-mother, Nezemt. The main part of all three letters is the same, an order to take two *mazoi*—constables—who had been

blabbing, and have them brought to Pai-onkh's house, and "put a stop to their words altogether. If they (A and B) perceive that it is true, they shall put them in two sacks, and throw them into the water by night, without letting anyone in the land know about it." The slight variations in the letters shew that B was to do the crime, A was to see it was done, and C—the queen-mother—was to verify and authorise the business. The letter to the queen ends with full formal greeting, and then a line of filial affection scrawled at the end "and write to me how thou art. Farewell." The letter to A has a mysterious addition about the king (Rameses XII? or Herhor?) being absent, and that gold had been ordered to be sent to Pai-onkh but had not come, and that it was now to be sent at once. How these three letters to different persons came to be put up together is shewn by the endorsed addresses. They had been received; B passed his to A as a voucher, A sent both together to Pai-onkh's private secretary, and the queen did likewise. He then put them all together and sealed them, to go into the archives as business done with. That roll, and the two sacks in the river, close the history of the indiscreet constables.


In a brief paper, Dr. Casartelli warns readers against a hasty assumption that Darius and his race were Zoroastrians.

A note by Dr. Elliot Smith on circumcision gives some evidence that it was preparatory to marriage in Egypt, and not an infantile ceremony, as in Judaism.





Another note by the same author, on mummifying, refers again to the IIIrd dynasty mummy of Ra-nefer, well known and published twenty years ago; it is slightly pre-dated by a mummy at Saqqareh, of the IInd or IIIrd dynasty, which had each limb wrapped separately. What was probably a still earlier instance has been destroyed at the Cairo Museum. The arm of the queen of Zer, of the Ist dynasty, which had the gold bracelets upon it, was elaborately wrapped in a thick mass of the finest linen. It was presumed to be a mummified arm, though the flesh tissue was not recorded at the time. If not mummified, it was an example of the unflensing of the body, so well known from earlier times.

W. M. F. P.

Sphinx, 1913. (Uppsala.)

M. Henri Sottas discusses the significance of the title  *khery-sāsā nesut*, making good use of the ancient second and third dynasty decrees discovered at Coptos by M. M. Weill and Adolph Reinach. He proves it to be one of the honorific titles asserting a close friendship with the Pharaoh, and to be included in the Egyptian hierarchy.

M. Ernst Anderson reviews M. G. Jequier's "The Egyptian Monuments in Diocletian's palace at Spalato." One of these is a sphinx, of interest because it is much the largest specimen of these mythical creatures, of the type which shows the animal holding a vase in its front paws, which terminate in human hands. Around the sphinx's base are a series of cartouches giving the names of vanquished foreign peoples, or tribes; of much value for comparison with, and the completion of, the famous Karnak list, of similar character, of Thotmes III. The Pharaoh's name has disappeared from the sphinx, but it should be that of Thotmes III, or Rameses II. In future this text will have to be considered when editing the conquest lists of these two kings.

M. H. Sottas has a study of the real concept connected with the Egyptian word *Ka*. He shows that the  in the singular, and the   , or plural, connote different ideas. The first is the double, or spirit of a man, and of a Pharaoh, and will be the seat of his life in the next world. As Pharaohs were already deified when upon earth, that is to say, had passed from mortality to an assumed immortality, they possessed a *ka* whilst living here. The earthly function of the royal *ka* was to personify the king's divine name, and to carry its hieroglyph standard behind the Pharaoh at all priestly functions. No doubt some acolyte of each temple assumed this rôle when the king acted as a sacrificial priest. In a few rare cases, non-royal Egyptians who had been deified whilst still living, seem to have also had an earthly *ka*.

The plural *kau* symbolised the vital forces as personified in certain deities. These gods are clearly displayed as so personified by their *kas* in the tableaux of the birth of deified princes of the royal line of Horus at Der-el Bahri and at Karnak. Ordinary mortals received their vital force of *kau* at birth, but became separated from them at death; whilst a Pharaoh, being deified, and so immortal, did not lose his at his decease.

M. Ernst Anderson, in reviewing an essay by M. Gaillard upon the domesticated animals of ancient Egypt, shows that the Egyptians possessed a race of oxen without horns, as well as kept cattle whose horns had been artificially removed.

The same writer mentions the publication by M. Grapow of six mutilated lines of a third recension of "The Story of the Predestined Prince," which are upon a piece of papyrus at Turin. These have been used by Sir Gaston Maspero for his final edition of this story.

Dr. L. Reutter, of Neuchatel, gives a careful chemical analysis of the ingredients utilised for mummifying birds, and proves that the resinous base consisted of Judean Balm. The other materials used for these avian embalmings were the gum of the cedar tree and of the *Pistacio Terebinthus*. Palm wine was added, probably as an alcoholic solvent of the resins. Natron also was probably utilised, and some special unguent whose nature is indeterminable.

JOSEPH OFFORD.

REVIEWS.

The Eastern Libyans. By ORIC BATES. 4to, 298 pp., 11 plates, 113 figures. 42s. 1914. (Macmillan.)

This monumental work is of a kind which is much needed in various branches of history ; it is a compilation of all facts and references concerning Eastern Libya, with sufficient discussion in general, and based upon personal knowledge of the country. It is strange how much land lying close to civilised traffic is practically unknown. Myriads pass along the Mediterranean yearly, not one in a generation goes along the shore ; tourists swarm up the Nile, not one sets foot on the cliffs which they pass ; thousands of Anglo-Indians sail down the Red Sea, while the mountains on either side are less known than Uganda or Arizona. North Africa has stood outside of civilised interests,—the fatal legacy of the Arab conquest. The occupation of Algeria and Tunis has not touched the eastern part ; and in the present work Mr. Bates has had an open field without a rival. As a whole the task has been worthily done ; apparently exhaustively as to material, clearly classified, interpreted profitably, and swarming with references to the lasting benefit of those who follow. The type is sumptuous, but the drawn illustrations are curiously coarse, and not adequate in detail for so complete a publication. We may now proceed to give an outline of the contents, with some notes on details of Egyptian interest.

The first chapter is on the physiography. The character of the land is described from personal knowledge, with more brevity than most other countries could be treated, owing to its dreary uniformity. The coast and the desert plateaus are detailed, with the itineraries of the main roads, and the oases. The climate and health conditions are fully described, the flora and fauna, and the statistics and life of the people. The glowing account of Berber virtues quoted from Ibn Khaldun makes us wish that such an excellent people had more effect on Southern Europe. That such men have not vanished is shown by the splendid character of Abd el Kader. Perhaps they have a future yet before them ; tens of thousands of Algerians are already brought into France as agriculturalists, to supplement the waning population. If Europe empties itself in a great war, it seems likely that the Moor will be one of the immigrating races to fill up the vacancies.

The second chapter on the ethnology is a mass of detail, which needs much research for its simplification. The basic race is said to be Hamitic, "a type tall, spare, long-limbed, and dark ; hair black or dark brown, straight or wavy, head dolichocephalic, orthognathous, nose slightly aquiline or straight ; eyes dark and piercing, set rather widely apart ; mouth well-defined ; facial capillary system slightly developed ; movements generally slow and dignified" (p. 39). How far such a type is the product of the land, is the question. It seems in most points to be closely adapted to the conditions ; yet it is of a higher nature than would be likely to be produced by such a poor region. May we then not see in these people immigrants from a more favourable country adapted to the Saharan fringe, and

therefore not obviously at one with their original stock? This Hamitic people have in the south-west received a negro mixture. In the north along the coast there is a brachycephalic Berber race, and in the mountains a blond population, both of which are intrusive. The blonds are not due to the Vandal immigration, as they are represented on the monuments of the XIXth dynasty. The earlier figures of Libyans are, however, brown; may not this difference be due to the Egyptians at first only knowing the Eastern Libyans who are dark, and the fair Libyans who came forward later, having come from the Algerian mountains and Morocco, where they still live?

On the more detailed question of the position of various tribes named by the Egyptians, Mr. Bates prefers to ignore the close connection of the various names with those in Algeria and Tunis. Eight tribal names are found in that region, while only two can be also paralleled by names of the Eastern Libyans. The fact that the XIXth dynasty Libyans are fair might be a warning to us that they came from the region where fair races can now dwell, and not from the Eastern Libyans who are dark. The persistence of names is often under-rated, but we have to deal with only a short time—less than a thousand years—between the Egyptian wars and the classical geography. In England, in spite of the crushing Saxon and Danish immigrations, half of our cities bear British or Roman names of two thousand years ago. In Italy, Greece, or Syria, nearly all the names are ancient. Such persistence, naturally, does not appeal to the American mind. The supposed evidence as to the distance of the tribes, three weeks' march from Egypt, only refers to the distance of their mobilisation for the final march over the barren region near Egypt, and has no relation to the distances they moved in order to be gathered together. The mixture of those tribes in one army with the Shardana and Shakalsha points again to their being in the Algerian region, near Sardinia and Sicily, and not in Tripoli which had small attraction for European races. The whole of the tribal names known in different later periods are here set out, and illustrated in a series of maps, which are of great value for reference.

The next chapter deals with language and writing. The various opinions on the origin of Berber are stated. The mutations of sounds between the different dialects are illustrated. Some principal descriptive roots in place-names are discussed in connection with modern Berber; and it is noticeable how most of them are Italic roots; D R R, mountains, *durus*, rugged; M' R, M G R, great, *maior*, *μακρος*; *thagura*, shelter, *tugurium*, a hut; L G, a well or pool, *lucus*, a pool; K B, summit, *caput*, head. The persistence of the Berber roots from Egyptian times is noted; and lastly parallels are given between twenty Egyptian and Berber words. Such connections, and the grammatical similarities, show a strong connection,—perhaps an underlying common speech, which was differently developed and modified by immigration in each country.

The Berber writing is shown to have largely survived from ancient to modern times, like all other alphabets that we know. The old idea of the importance of Phœnician origins is not shaken off; for though stating that "The non-Semitic part of the alphabet is composed mainly of those signs which from their distribution might almost be called Mediterranean, and which are seen in the Celtiberian and Turdetan alphabets of the west, in the Cypriote syllabary, and even in Minoan Crete," yet six signs out of thirty are reserved as claimed for Phœnician descent. It is far simpler to regard the whole as part of the Mediterranean signary, which—long before it was used for writing—is found used as personal marks upon property in Egypt.

The chapter on Economics is full of interest, as dealing with the means of living and trade in a region which, by its barrenness, presents so many difficulties. Cattle were naturally the most important wealth in early times; but agriculture was followed in the XIXth dynasty, and became so important in the middle region that the treatise of the Carthaginian Mago was translated as the standard work for the use of Romans. The views of Ridgeway as to the Libyan breed of the tall horse are here rejected, and we are assured that they "were little more than ponics." This does not agree with the tall horses in the chariots figured on vases.

Society and government is briefly discussed. The laws of marriage and inheritance are on a par with what seem to have prevailed in early Egypt. There was much influence of matriarchy, although among the wealthy classes there was unlimited polygamy. A curious distinction at present among the Imushagh is that property acquired by work is inherited by children, but plunder is inherited by the eldest sister's eldest son. The primitive kind of acquisition still goes in the primitive descent. A curious remark is made that in the genealogy of Horpasen, no man is stated to have more than one wife; but, as that is a strict genealogy, the fact that no man could have two mothers, at once limits the case.

Dress and ornamentation is next described. It is remarkable that the upper class Libyans of the XIXth dynasty are shown with long robes down to the calf of the leg, much more clad than the Egyptians. This again points to the later Libyans having come from the colder highlands of Algeria. The earliest Libyan figure on the gaming reed of king Qa is misinterpreted. The face is unquestionably Libyan (see the Antaeus given by Mr. Pates on p. 260, and the Mashuash in "Racial Types," 154, 164-6), and the name *sethet* over it belongs to (1) people of the regions of the 1st cataract, or (2) to Asiatics. As Mr. Bates is particular to recognise a branch of Libyans at the cataract, in the so-called C group of graves, the name, as well as the portraiture, points to the Libyan race. Another figure of which Mr. Bates denies the Libyan connection (p. 118) has the Libyan lock of hair, unlike that of any other people, though unplaited as in figs. 17 and 22. The similarity of pattern between that on a Libyan robe and on Sardinian pottery is an excellent connection of design (fig. 16).

The sheath worn by the men is fully illustrated and described. In the pre-historic figures (figs. 18, *a, b*) the top of it shews a strong suggestion of a dagger handle (see fig. 59, *c, d*); is it not possible—as daggers were then used—that the dagger was worn in front, and combined with the male sheath? If so, the wearing of the dagger may have first suggested the protection of a sheath for the person. It is a Germanism to call it "penistasche," by no means "known to archaeologists," as the names sheath, *etui* and *cornet*, are in proper use outside of Germany.

The patterns of the belts are figured, apparently using plates of shell, which was a favourite material in pre-historic Egypt. The exact resemblance of the hat of Arkesilaus on the vase painting to a modern Saharan hat is one of the happiest parallels; it shews how even trivial details may survive for thousands of years in use. In connection with the Libyan tatuing, which is figured from Tell el Amarna, the similar tatuing on the skin of the mummy of Ament, priestess of Hathor, of the XIIth dynasty, in the Cairo Museum, should be noted. The well-known emblems of Neit tatued upon the Libyans of Sety I are figured and discussed, in agreement with the general opinion that they indicate a regard for that goddess.

The material culture and art is an important chapter, though in the absence of any trace of the early Libyans in Libya itself, our knowledge is very imperfect. The objects used, or yielded as tribute, by the Libyans are largely reckoned by

Mr. Bates as imports into Libya, the vases from Syria, the swords from Sardinia. The lack of metal weapons in classical times is used as a strong argument for the metal of earlier times having been imported. If so, it implies that there were corresponding exports of large value from Libya. What can such exports have been? The nine thousand copper swords taken by Merenptah must have cost a large export for the Libyans to purchase them. It is hardly relevant to bring in the well-known Fayum desert flints in discussing historic Libyans. The age of these, indicated by their colouring, is long before the periods otherwise discussed; and the absence of flints of these types from all known periods of Egyptian tombs points to their being earlier than even the pre-historic civilisation of Egypt. Only one flint shewn, No. 32, is of Egyptian type, of the middle pre-historic age; and that probably is a stray specimen, and not of the Fayum class.

The various articles of modern Imushagh furniture are listed, with the parallel list of the ancient objects so far as recorded. The awls which it is said they must have had for leather work, were doubtless the sharp pointed fish jaws so commonly found in Egyptian town sites, evidently collected as borers.

The poetic system of modern Imushagh verse is described, as illustrating the description of the ancient religious songs. It appears to be much looser and more casual than any ballad verse of Europe, perhaps nearest the Italian impromptu couplets. With the exception of one imitation of an Egyptian stele there is nothing that can be called Libyan art, for figures that are obviously under Græco-Roman influence do not count. In the architecture there are very few stone megaliths in Eastern Libya. Those in North-west Africa are in one group with the western European megaliths, and Mr. Bates reasonably concludes that the people who erected them were the blond race which appears to have come down through Spain. The strongholds are mentioned by Diodorus and Pliny, and may be identified with various rude-stone structures, having a ditch around, and buildings on the plateau. The slighter dwellings were booths with tall conical roofs, which formed the outskirts of the Roman towns, and were probably such shelters as the Therapeutæ used in their camps. The farms were more permanent thatched huts.

The religion demands more space than any other chapter. Sacred stones and their worship, and the animism seen in the wind are first dealt with. Then tabu animals, divination, rain-craft, and magic. Burial was important among the Libyans, mostly contracted; but though the Egyptian laid the corpse on its side, the Libyan placed it seated upright. Piles of stones and offerings occur, as might be expected.

The list of Libyan gods is larger than might be hoped. The first, Ash is probably the same as *āsh*, a divinity in the 95th Chapter of the Book of the Dead. It is not connected with figures on the early sealings, which are quoted. Those are of Shu, sometimes written inverted as *ush*, but then with the single upright feather of Shu on the head of the god. (*R.T.*, Sealings 178, 179, 199, 200.) A god named Shaheded appears in personal names, connected with a bilingual inscription where Latin SACTVT is in Libyan SKTT. Sinifere and Mastiman are known from Corippus. The "Libyan Poseidon" is not identified with a native name; nor is the god Triton, also named by Herodotos. The Sun-god is said to have received sacrifices, and is later identified with Hammon; at the Ammonium in Siwah was a fountain sacred to the sun. But the native name of the sun was Gurzil, who is said to be the son of the prophetic god of Siwah, otherwise identified with Amen. Thus the connection with

Amen-Ra is shewn by either belief. The name and worship of Gurzil, as Gurza, lasted down to the eleventh century.

A long discussion is given to the oracular Oasis god, here called *Deus Fatidicus*. He was the native god, and his form is apparently given as an embalmed figure, seated and entirely wrapped over in bandages, without the head projecting. Three such figures were found at Karnak, named as Amen. Two other representations of such bandaged figures on thrones, but with the head of Amen added, are on a relief at Karnak, and on an engraved (not "etched") mirror. This kind of representation, it is suggested, is like that of the wrapped up human sacrifice, the *teknu*; and it should also be noted that the early *teknu*, in the XIIth dynasty, has no head (QUIBELL, *Ramesseum*, Pl. IX). As the Libyans buried the wrapped up dead seated, this attitude of the god agrees to its being an embalmed body. What may be the connection of this entirely wrapped up Amen, and the name of the god meaning "the hidden"? Mr. Bates protests that there is no evidence that the oasis of Siwah was Egyptianised earlier than the XXVIth dynasty; but may not a protoform Amen underlie both the Theban Amen and the Siwan? Another point which should also be searched out is that the Carthaginian form is always *Haman*, and the Latin form of the oasis god also has the aspirate, Hammon.

A vague Sky-god is identified with Saturn, and appears in some dedications. The special Ausean goddess, described by Herodotos, is conjectured to have been the Sky-goddess. The western origin of Neit is discussed, and concluded to be most probable. In a note, the arrows of the sign of Neit are said to have a concave cutting edge; but in the clear examples—such as the great stele of Merneit—the arrow head is straight, and the actual arrows found have straight chisel ends of flint, never concave. The concave end is only found in the larger lance heads, such as the one figured (VIII, 32) which is pre-historic Egyptian and not Libyan.

A summary of the history of Libya concludes the work. The whole of the records are discussed, and put in their historical position and relative conditions, in a very clear and satisfactory manner. We may only note that (p. 212) the pectoral of Senusert I, should read S. III; and the statement that the Prince Sheshenq appealed to a king of the XXIst dynasty has no monumental dating to fix it, the statements (p. 228) all depend on the supposed Libyan origin of the "Man of Susa"—Sheshenq, which is improbable. Pheritime for Pheretime, and Harcoris for Akhōris, need correction.

Five appendices discuss collateral matters of value. The first deals with what are known as the C group of burials in Nubia. These Mr. Bates connects with the Libyans, adducing similarity of type, circular superstructures to graves, cross bands worn by men and skirts by women, feather on head, tatuing, pottery, and some other details. He concludes that they were of the Temehu. The second appendix deals with two Gheytaḥ inscriptions, claiming that they are in a South Arabian script. The alphabet proposed seems to vary quite as much from those forms as does the Libyan already suggested. The third appendix deals with the traditional origins of different Libyan people; the fourth with Biblical references to Libya; the fifth with the type of the Libyan giant Antaeus on a vase of Euphronios, shewing the Libyan features, like the Mashuash 154, 164, in "Racial Types." A dozen pages of bibliography and various indices complete the volume.

Such a comprehensive work is only possible where our knowledge is not extensive. On any well-known race any one of the chapters might well exceed the size of the whole book. It is a kind of summary which is greatly needed for

various less-known countries, and it will serve as a starting point for fuller research in several lines. It is moreover not a book-man's compilation, but a reading of all the material from the point of view of a personal familiarity with the land and the modern people. We hope that Mr. Bates may yet produce much more of such solid and comprehensive work; with perhaps a more cautious investigation of matters where he may happen not to agree with other writers.

Egyptian Blue.—LAURIE, A. P.; McLINTOCK, W. F. P.; MILES, F. D. 8vo., 12 pp. (*Proc. Royal Soc.*, Vol. 89, 418-429.) The brilliant shades of blue and green used in Egyptian colouring have always been attractive, whether applied as a paint, or fused in a glaze; while, unless exposed to continuous moisture, the colour is unchangeable. The same colours are found to have been used in glazes from pre-historic times, and as a wall paint from the XIIth dynasty. From Egypt they passed to Greece and Italy, and balls of blue paint are among the colours found at Pompeii. The method by which this colour was made was first illustrated by excavation in 1892 (*Tell el-Amarna*, p. 25). Pebbles of white quartz were ground to a coarse powder, mixed with alkali, lime, and copper ore, and then heated so as to combine slowly without actually melting. This produces a frit, or porous mass of crystals, which can easily be ground down to a powder. The alkali—potash or soda—attacked the silica, and then handed it on to the lime and copper; thus was gradually formed a silicate of lime and copper. The shade of it depended on the proportion of copper in the blues, and the presence of traces of iron in the greens, while the depth and richness of colour depended on the length and amount of the heat. The reproduction of the colours was carried out with great success in the hundreds of experiments made by the late Dr. W. J. Russell, of which he published an outline in *Medum*, pp. 45, 46. He found that the silica was sixty to eighty per cent. of the whole, a very delicate greenish blue was made with three to five per cent. of copper ore, a full blue with ten, and a rich violet with twenty per cent. An ordinary brown sand contains enough iron to give a green tone to the blue. Further details on the manufacture were found at Memphis (*Historical Studies*, p. 35). The colour after being formed in pans, as found at Tell el-Amarna, was made up into balls, some .3, some 1.2 inches in diameter. These balls were placed in large jars of pottery, lids were sealed over the mouths; and then the long roasting for many hours, which gave the finest colour, could be carried on without the air or furnace gases reaching the balls. As the pottery of the jars contained iron it would discolour the balls if in contact with them; the jars were therefore lined with a thick coat of blue colour, so that the iron discolouration never passed through the lining, which was about a quarter of an inch thick. This shows how large a part of the material the Egyptian would sacrifice in order to get the finest result. Some of the linings were of most magnificent purple-blue colour. This will serve just to show how the subject stands from the point of view of actual finds of objects.

The paper above named takes up the questions from a laboratory point of view. Dr. Laurie examined specimens of blue on a coffin of the XIth dynasty, on XVIIth dynasty samples from Gurob, on Knossos frescoes, on Roman samples from the Palatine frescoes, and from Viroconium. All of these were similar in nature, a truly crystalline compound identical in its character. On studying the samples which Dr. Russell had prepared, together with his notes, it was seen that where lime was used without alkali, repeated heating and grinding was needed to attain the blue colour; where alkali was also used the colour was got in the first heating, as it acted

as a solvent. Alkali alone, without lime, only produces a blue glass, and not the true crystalline blue.

Experiments were then made to find the conditions of heating required. The batches were kept uniformly heated for sixteen to twenty hours. That at 760° centigrade was very imperfectly combined, at 800° it was better, at 830° there was still much uncombined. By grinding and reheating at this temperature, however, the blue was completely formed. At 890° and 905° , cherry-red heat, it was overdone. As a trial some was heated up to $1,150^{\circ}$ (white heat, melting of cast iron) and to $1,400^{\circ}$ (dazzling white heat), and a green glass was formed; when this was toasted at the 850° point, the true blue was reproduced. One sample was absolutely fused in the oxyhydrogen flame, but two days' heating at 850° brought it to a brilliant blue. Thus it seems immaterial what happens first to the mixture, so long as it gets a day or two of toasting at a moderate red heat. This exactly accords with the Egyptian practice of heating in sealed jars, as at Memphis. It is remarked how narrow a range of temperature is needful; one twentieth of the heat, more or less, and the process is spoiled. The Egyptian must have watched his furnace very carefully to keep up the exact heat for so long a process.

The proportions of the mixture were then varied, keeping to 850° as the best temperature. When the alkali was a fifth of the whole no blue was formed, as it dissolved in the alkali as a green glass; with a seventh a frit resulted with some blue; with a twelfth of alkali the result was excellent. On using only silica lime and copper without any alkali, overheating to produce combination, and then toasting at the right heat, a little blue resulted, but the process was not practicable. With only a twenty-fourth of alkali, and overheating, with subsequent toasting, a full blue can be obtained, but slowly. As the Egyptians had not a pure alkali, a sample was made up to correspond to the native natron, and this with forty hours heating gave excellent results. A sample was then completely freed of uncombined material and of fused glass, by usual chemical means, and the analysis of the true blue crystals gave

Silica	...	...	63.4
Lime	...	...	14.4
Copper oxide	...	...	19.5
Potash	...	...	1.1
Soda	...	...	.9

99.3

This corresponds very nearly to the formula originally stated by Fouqué, $\text{CaO}, \text{CuO}, 4\text{SiO}_2$, crystallizing in the prismatic (tetragonal) system.

At the close of the paper are some speculations as to how the Egyptians originally discovered the colour. Unfortunately Dr. Laurie accepts the theory of Mr. Burton that the Egyptians carved objects of sandstone and then glazed them. For several reasons this is entirely impossible. No sandstone is known in Egypt of texture or quality approaching that of the base which was used for glazing. The base shows in its body, when fractured, spherical hollows which were evidently bubbles of air, included, when it was being made up with water, artificially before baking. Lastly, the forms found in all periods, such as long tubular beads, would be impossible to cut out of a solid piece. The utmost that can be allowed is that dry blocks of material, after moulding, may have been trimmed in the details before glazing. This is often seen in the case of minute retouchings, but it was certainly not the case on the general forms. The multitude of moulds for moulding the

figures of gods and every kind of ornament, show that damp moulding was the rule. Only a sharpening of the detail was done on the dry material after moulding. The careful exclusion of iron from the base is remarkable; no native sand so white is known in Egypt, and it must have been carefully prepared artificially to remove the iron, in order to prevent the blue colour of the glaze being spoilt. As some of the earliest glazing is that on clear quartz crystal beads it seems very likely that glazing was developed in the course of copper smelting. The wood ash of fuel would give the alkali, and lime and silica would be in the copper ore. Such a coloured slag, or a glass run from it on to the pebble floor of the furnace, would then be the starting point for artificial imitations.

Incarnation (Egyptian).—WIEDEMANN, A., 4 pp. (*Hastings' Dictionary of Religion and Ethics*.) This article is a valuable one for the explanation of ideas, and for the insight into Egyptian modes of thought. It is written with the sympathetic feeling which has made the author's other works on the religion so much appreciated. To begin with, the Egyptian frame of mind is explained, which thinks of the individual instead of the class, of the limb instead of the man. Actions were expressed as "my eyes see," "your legs walk," "his hand strikes"; classes were said to be of "each men," "each legs"; the whole was stated as "to its limit." This love of the extremely concrete, and lack of abstractions, pervaded all Egyptian ideas of divinity. Where expressions of omnipresence are used, it is only as a flattery of the deity, like similar qualities attributed to the king.

The name was an entity independent of the object, and not identical with it; and the various names of a deity were independent subsidiary deities. The statues retained some of the divine personality of a deity that had entered them, and became separate deities who no way detracted from their original inspirer. Thus we can understand the co-existence of many forms of a single deity in one place; each had its individuality. May not something of the same frame of mind be traced in the various local names attached to different worships of the Virgin in Italy?

Similarly the dead could be availed of various embodiments, such as a bird, a serpent, a crocodile, or the god Ptah. This is not metempsychosis, but the capacity for any form of embodiment. The dead could also assume a human form. The mummy was the greatest of all dwellings for the spirit; and it was through its incarnation in the mummy that it could again by spells enjoy all the good things of life which were figured in the tomb.

The sacred animals were the special seat of incarnation of the gods. Though the animals were the aboriginal deities, yet the old worship was blended with the more spiritual deities of the prehistoric civilisation; and the deity of a tribe settling in a district was identified with the aboriginal animal god of the place,—Ptah with the Apis, Amen with the ram, Horus with the hawk.

Man was not a single whole, nor were the gods. Each was a complex of many constituents which happened to be united. A striking case of this is where the king acting as a priestly ruler, gives offerings to himself as embodied in a figure of divine character.

Various ideas were personified. The emblems of life, power, or stability were figured with limbs carrying emblems of the king. The senses, and abstractions, such as time, joy, or darkness, are deified, receive homage, and are supplicated.

The incarnation of a god in the king, by divine descent, is familiar in many scenes, as in the temple of Luqsor shewing the divine conception of Amenhotep III,

or that of Deir el-Bahri concerning Hatshepsut. In other myths any particle of a god could be used to frame a magical object, which might even be to the detriment of the god himself.

Incarnation was also claimed by magicians, who asserted their embodiment of a god, and demanded obedience in consequence. Similarly the mourning women who personified Isis and Nebhat were inscribed with those names. The gods might also be incarnate in animals; and the weird range of transformations in the story of Bata shews the unlimited possibilities of such ideas. Any one touching on these subjects should certainly study this article, with its full references and authorities for each point stated.

Museum of Fine Arts Bulletin.—Boston, August, 1914. 10 cents. This contains an account of the new arrangement of the Boston Museum. It is now in five divisions; first the Primitive Egyptian Room, or Pre-Khufu, as it might be called; in this is a separate case for each class of prehistoric pottery, for stone vases, for personal objects, and for stone dishes and weapons. The second room is for the Old Kingdom, where the fine seated figure of Khuenra, and other statues, with the complete outfit of the architect's tomb, will represent the period. Thirdly, the mastaba gallery has fine tomb sculptures from Saqqareh. Fourth, the Hyksos series is very rich, from the cemetery of Kerma, which we described in the last number (p. 138). Lastly, in the loggia are the stone and gold necklaces of the Middle and New Kingdoms, bracelets, earrings and amulets. Three views in the museum are given, and illustrations of half a dozen early Chinese bronze vases add to the interest of this number.

The Boomerang in Ancient Babylonia.—NIES, J. B., 7 pp. (*The American Anthropologist*, Vol. 16.) The requirements for a true returning boomerang are here given, and the opinion of a professed thrower that the Egyptian bent flat sticks, with one face flat and the other convex, would return if thrown high at birds. Examples are given of the form of the Assyrian sign *geshipu*, shewing that from the time of Gudea back to the prehistoric, the earlier the form the more near the boomerang shape. As among the meanings of the word is "throw, strike, destroy, turn, return, deviate," it seems very probable that it represents the returning boomerang.

Les Nègres d'Afrique.—OVERBERGH, C. VAN, 8vo, 276 pp. (Dewit, Bruxelles.) This volume is an outline of a great work on Descriptive Sociology, of which ten volumes on Africa have been published. The introductions to these volumes are here given, together with the table of classified contents. The system of tabulation of results under 202 different headings is a sight to stimulate recording and research. Unhappily we fear that all scientific work in Belgium will long be in abeyance, so that we can hardly hope to see the volumes on Egypt which were in the programme of this enterprise.

NOTES AND NEWS.

A great loss has befallen Egyptian work, in many directions, by the sudden death of Dr. JAMES HERBERT WALKER, M.A., M.R.C.S., L.R.C.P., which took place on July 21. We are sure that all who knew him will deeply regret so sad a loss. Those connected with the British School will feel it the more, as his official connection with that body as co-Secretary, since its constitution in 1905, had bound his personality and his work so closely with the rising fortunes of the Society. His especial charge in that work was the American branch, the correspondence of which was chiefly in his hands. His loss will be also personally felt at University College. He had joined the Egyptian classes there at the beginning of the department in 1892, where he was the most promising student of Mr. F. Ll. Griffith. After Mr. Griffith resigned that teaching, his successor was Dr. Walker, and from 1903 until this summer, a series of students have owed their interests in the higher branches of Egyptian language and Coptic to the enthusiasm and the ever-patient teaching which he had given them. Those who knew him more personally remember the constant help that he always gave to every call on his time or attention in the most kind and generous manner. We can but repeat the words of one who knew him well: "I never knew him say or do an unkind thing. He was a single-minded, simple, honest English gentleman, whom it was an honour and a pleasure to know. His early death has left an aching in many hearts." Our deepest sympathy is given to Mrs. Walker in such a sudden and terrible blow.

The care of our American branch, which has been so suddenly deprived of the management of our lamented Secretary, Dr. Walker, will in future be taken in charge by Mr. Percival Hart, Grove Lodge, Highgate, London, N.

The Annual Exhibition of the British School at University College was attended by double the number of visitors that have come to any previous archaeological exhibition. The astonishing view of the jewellery of Princess Sat-hathor raised an interest which spread far beyond those who previously cared for Egyptian matters. In other directions also there was a large show of fine things, and the museums of places that had helped have received a good return.

The present horror that threatens to submerge European civilisation and shift races like the ancient migrations, is bearing heavily on all science and culture, and will have its effects for a long time to come. It has temporarily withdrawn many workers who were helping the researches of the School.

Mr. Brunton is in the Hospital Corps at Netley.

Dr. Amsden is medical officer of the Royal Sussex at Cooden Beach.

Mr. R. Engelbach has joined the Artists' Corps of Territorials, and his results of last year's work can scarcely be prepared until the war is over.

Mr. Battiscombe Gunn, who was copying and translating the inscriptions of the year, is shoulder to shoulder with Mr. Engelbach.

Mr. Duncan Willey, who excavated with us last winter, is in the R.A.M.C.T.

Miss M. A. Murray may be called off at any time, being an organizer of the Voluntary Aid Detachment of the College Women's Union Society.

Of our previous workers, Mr. Horace Thompson is in the Oxford and Bucks Light Infantry.

Mr. Mackay is leaving England to continue the conservation of the Theban tombs.

Mr. Quibell has now returned to Egypt to take up his duties as Curator of the Cairo Museum.

Mr. N. de G. Davies and Mrs. Davies have resumed their copying of the Theban Tombs.

Mr. Somers Clarke is also now returning to Egypt.

What may happen in Egypt, and what chance there may be for work there next winter, no one can yet foresee. We trust that M. Lacau will find that his health, and the conditions politically, will allow of his taking up the burden of administration which Sir Gaston Maspero has now resigned. It is an unfortunate feature of our present system that scientific workers, when most able, are called from research to the business administration of public services. The foremost scholars in different lines have all had to sacrifice science to the details of office work. It ought to be recognised that all office routine is the province of a lesser type of mind than that of the foremost in scientific work, and only the decisions of important questions should fall on the specialists who may be the leaders in their own subjects.

THE EGYPTIAN RESEARCH STUDENTS' ASSOCIATION.

It is too early in the season to collect detailed information regarding the winter meetings of the branches, and the prospects of only two of the branches can be mentioned here. Several Hon. Secretaries have expressed their conviction that it is desirable to continue the meetings during this winter. These quiet meetings with lectures and social intercourse are neither frivolous nor tending to expense, and we must encourage the constructive side of life in this time of war.

LONDON. (Hon. Sec., Mrs. Sefton-Jones, temp. address, c/o Edwards Library, University College, Gower Street, W.C.)—Meetings, monthly, at 8 p.m., lecture, 8.30 p.m. Oct. 29, at University College, Gower Street, Prof. Flinders Petrie, on "The Use of Metals in Egypt." Nov. 5, at 10, Lower Grosvenor Place, S.W. (by kind invitation of Mrs. Purdon), the Lady William Cecil Baroness Amherst of Hackney, on "Excavations of Tombs in the Gebel Qubbet el-Hawa." Dec. 10, at 29, Tite Street, Chelsea, S.W. (by kind invitation of Mrs. Percy Bigland), Mrs. Lewis, D.D., on "The Sinai Gospels."

HASTINGS. (Mrs. Russell Morris, Quarry Hill Lodge, St. Leonards.)—Dates fixed later. Major Davenport, on "Ancient Egyptian Jewellery." Dr. Spanton, on "The Egyptian Water Lily." Rev. J. D. Gray, on "Neolithic Man." Mrs. Court. on "Sign Language."

HILDA FLINDERS PETRIE.

THE PORTRAITS.

Two of the best portrait figures are here given to show the entire difference in style and feeling between the Old Kingdom and the XVIIIth dynasty.

The statue of Ranefer is one of the finest figures of the great nobles of the Pyramid Age. The art of their time has perhaps glorified their nature ; yet an age which could support such art must have had magnificent ideas and leaders. We may therefore reasonably look to that splendid period as one of the great flowering times of the human race, like the age of Pericles or of the Florentines. In this statue we do not see the expression of mental and moral power only, as in Khufu and Khafra ; but also of intense activity of body, will, and resolution. Though strictly a passive figure at rest, yet we see marvellously rendered the tense reserve of energy in the whole air, the firm muscles, the decisive pose, the unflinching authority of a great leader in a system, who yet was not an autocrat. The statue was found in the tomb of Ranefer at Saqqareh, and is now in the Cairo Museum.

As a complete contrast look at the statuette of an officer of the XVIIIth dynasty, carved in ebony, with gilt collar and armlets. In every point it shows the soft, self-indulgent, indecisive type of the later age. The head leans forward, instead of being supreme in bold dignity. The shoulders slope and round, the arms are lax and soft. The trunk is rounded, with softer breast and fuller stomach, beneath which the belt is pushed down. The legs are round and not firmly planted. In every detail is seen the weakness, the graceful refinement, the incipient decline, of a period which attracts more by its picturesqueness than by its strength. The figure was found in 1860 in a tomb at Thebes, and is now in the Berlin Museum.



STATUE OF RANEFER, 5th DYNASTY.
IN LIMESTONE. CAIRO MUSEUM.



STATUETTE OF AN OFFICER, XVIII DYNASTY.
IN WOOD. BERLIN MUSEUM.

Since going to press we have received the following statement, kindly supplied by Mr. H. R. Hall:

"The excavations of the Egypt Exploration Fund at Abydos have brought to light the inner hall of the Osireion, a splendid building of great blocks of granite, limestone, and red quartzite, closely resembling the 'Temple of the Sphinx' at Gizah. It has a massive surrounding wall of about twelve feet in thickness, the outer part being constructed of white limestone while the inner face is of red quartzite. The pillars are of granite, with granite architraves. When cleared, this building will be, as is the Temple of the Sphinx at Gizah, one of the most interesting objects of antiquity in Egypt, and will, like Dêr el-Bahri, always remain a monument of the work of the Fund and of Dr. Naville.

"Later in the season Prof. Whittemore will carry out excavations in the neighbourhood of Abydos and at Sohag.

"Mr. Blackman has worked for a short season at Meir, clearing and copying the tombs of Ukhutetep I and II for the Archaeological Survey. A full report of his work will appear in the July number of the *Journal of Egyptian Archaeology*, with photographs.

"Mr. J. de M. Johnson has had a long season at Shêkh Abâda (Antinoë), for the Greco-Roman branch of the Fund, and has trenched the mounds in every direction for papyri, with some success. Many of the objects of every-day life in the Roman city, textiles, leatherwork, pottery, etc., which will be exhibited in London in July before being distributed to museums, are of considerable interest."

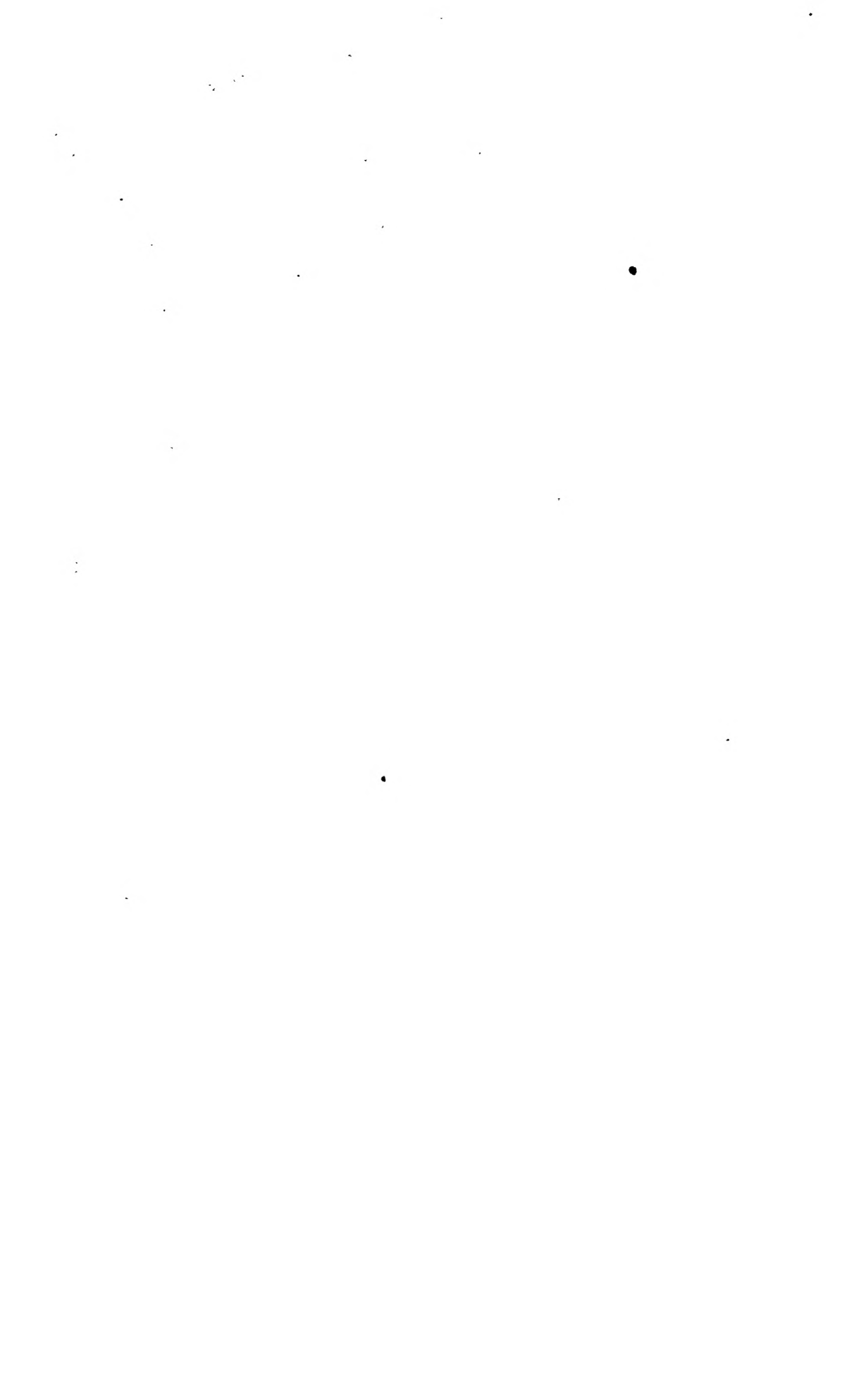
Our readers should be as well informed as the Continental public are about English work; we therefore quote the following details given by Dr. Naville in the *Journal de Genève*, 26 February:

Continuing work from the sculptured part of the Osireion formerly discovered and excavated by the Egyptian Research Account, two halls have been found; one 100 by 65 feet wide; the other opening from it, 65 feet wide by 16 feet. The first hall is roofless and is deeply encumbered with stone: in neither hall has the floor yet been cleared. The first hall has walls 13 feet thick, of limestone outside and red quartzite inside. It was divided by two rows of granite pillars, forming three colonnades like the granite temple at Gizah. The architraves are 16 feet long, and the roof is of red granite 6 feet thick. The roof is only at the sides, and not over the middle colonnade. It was quarried by Rameses II for his temples, and later for Roman millstones. In the walls are at least sixteen niches for statues. The only trace of inscription is some funeral text of Merenptah on the end wall.

In the second hall, on one wall, are texts of the last scene of the Book of Duat, engraved by Sety I. The whole ends a few feet from the temple of Sety I. Prof. Naville refers the original building to the Old Kingdom, but the quartzite masonry indicates the Middle Kingdom.



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"A book that is shut is but a block"

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